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Queen's University

KINGSTON, CANADA



INCORPORATED BY ROYAL CHARTER IN 1841

CALENDAR OF THE FACULTY OF ARTS

ONE HUNDREDTH SESSION
1940-41

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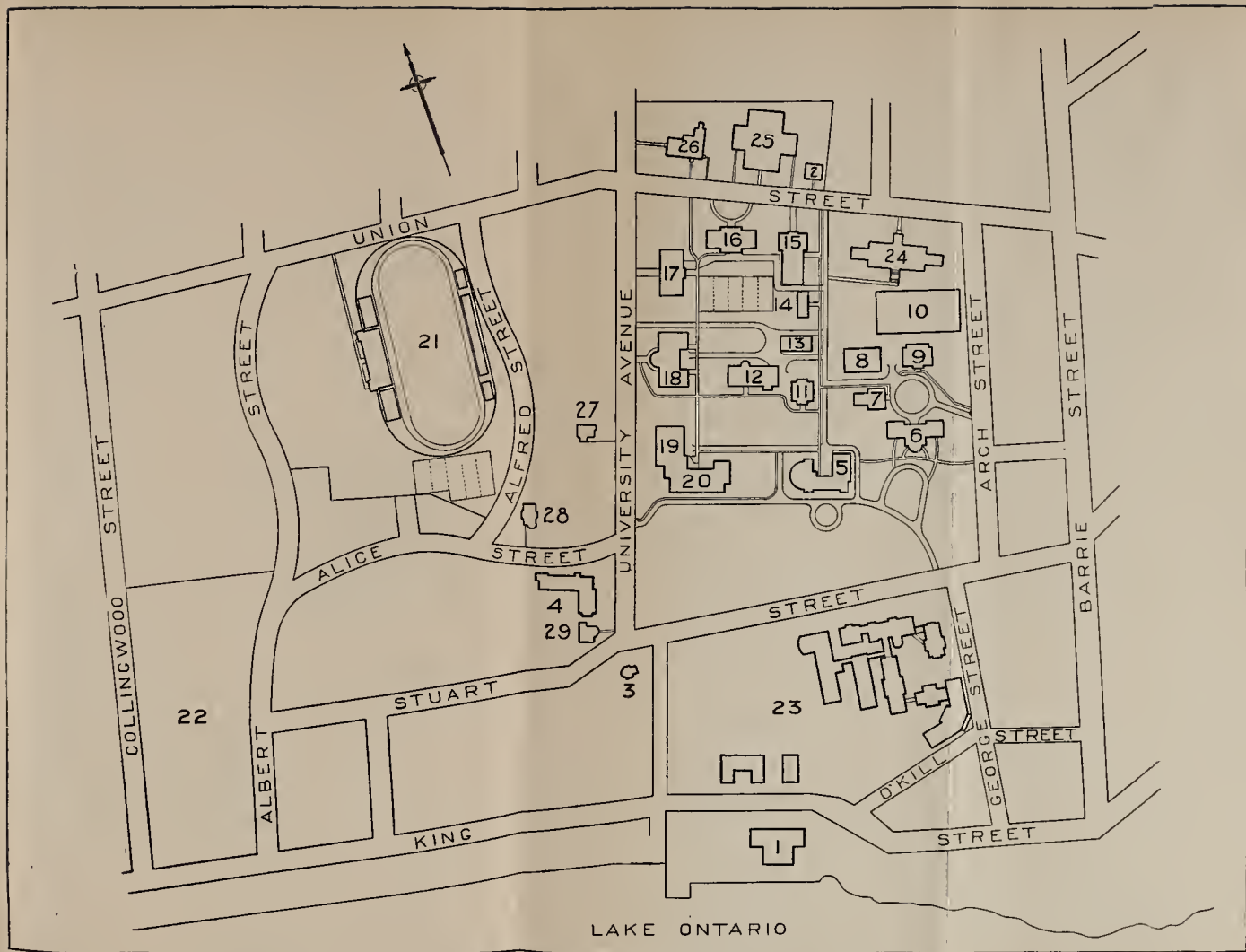


INCORPORATED BY ROYAL CHARTER IN 1841

CALENDAR OF THE FACULTY OF ARTS

ONE HUNDREDTH SESSION
1940-41

PRINTED FOR THE UNIVERSITY BY THE JACKSON PRESS
KINGSTON
1940



BUILDINGS OF QUEEN'S UNIVERSITY

PLAN OF QUEEN'S UNIVERSITY GROUNDS

- | | | |
|-----------------------------------|----------------------------|---|
| 1. Central Heating Plant. | 11. Carruthers Hall. | 21. Richardson Stadium. |
| 2. Commerce Building. | 12. Fleming Hall. | 22. Leonard Field. |
| 3. Observatory. | 13. Storehouse. | 23. Kingston General Hospital
and Richardson Laboratory. |
| 4. Ban Righ Hall. | 14. Mechanical Laboratory. | 24. Miller Hall. |
| 5. Theological Hall. | 15. Nicol Hall. | 25. Gymnasium. |
| 6. Principal's Residence. | 16. Gordon Hall. | 26. Students' Memorial Union. |
| 7. Old Medical Building. | 17. Douglas Library. | 27. Gordon House. |
| 8. Hydraulics Laboratory. | 18. Ontario Hall. | 28. Goodwin House. |
| 9. Medical Laboratories Building. | 19. Grant Hall. | 29. Macdonnell House. |
| 10. Jock Harty Arena. | 20. Kingston Hall. | |

TABLE OF CONTENTS

	Page
PLAN OF QUEEN'S UNIVERSITY GROUNDS	2
ACADEMIC YEAR	5
CALENDAR	7
HISTORY OF THE UNIVERSITY	10
GOVERNMENT AND ADMINISTRATION	13
The Board of Trustees	13
The University Council	13
The Senate	14
The Faculty Boards	15
OFFICERS OF ADMINISTRATION	16
Chancellor, Principal, Rector, Vice-Principal, Registrar	16
The Board of Trustees	16
The University Council	18
The Senate	19
OFFICERS OF INSTRUCTION	21
Emeritus Professors	21
Instructors in the Faculty of Arts	21
OTHER OFFICERS	28
EQUIPMENT AND SPECIAL FACILITIES	29
The Library	29
The Museums	29
The Laboratories	30
The Observatory	31
Facilities for Field Work	31
Facilities for Athletics	31
GENERAL INFORMATION	32
Degrees	32
Hoods	32
Council of Legal Education of Great Britain	33
The Students' Memorial Union	33
Information for Women Students	33
Expenses	34
Boarding Houses	34
Physical Welfare of Students	34
Tuberculin Tests	34
Vaccination	34
Attendance at Church	34
Student Self-Government	35
Alma Mater Society Lecture	35
Fraternities	35
Officers' Training Corps	35
Employment Service	35
Registration	36
ADMISSION TO THE FACULTY OF ARTS	37
Admission by Matriculation	37
Admission by Equivalent Examination	39
Admission to Advanced Standing	40
Admission by Special Regulation	40
REGULATIONS REGARDING EXTRAMURAL WORK	41
TABULATED STATEMENT OF SUMMER AND WINTER COURSES	47

	Page
THE SUMMER SCHOOL	51
FEES	53
SCHOLARSHIPS, PRIZES, AND MEDALS	56
Matriculation Scholarships	56
Scholarships in Arts	56
Graduate Fellowships	65
Prizes	73
Medals	74
GENERAL REGULATIONS	75
Special Students	75
Regulations regarding courses	75
Regulations regarding examinations	77
COURSES OF STUDY LEADING TO THE DEGREE OF BACHELOR OF ARTS.....	80
General Explanations	80
Synopsis of Courses	80
Requirements for a Pass B.A. Degree	81
Honours Courses leading to the Degree of Bachelor of Arts.....	82
General Honours Course	83
Courses for Teachers' Certificates	86
Inspectors' Certificates	87
Courses in Commerce and Administration	88
Combined Course in Arts and Applied Science	89
Combined Course in Arts and Theology	90
DETAILS OF COURSES OF INSTRUCTION	92
Language and Literature:	
Biblical Literature	92
Classical Literature	93
Latin Language and Literature	94
Greek Language and Literature	97
English Language and Literature	103
French Language and Literature	114
German Language and Literature	120
Hebrew Language and Literature	126
Spanish Language and Literature	127
Fine Art:	
Art	132
Music	133
History and Social Science:	
History	134
Mental and Moral Philosophy	142
Political and Economic Science	149
Mathematics and Science:	
Mathematics	161
Bacteriology	166
Biochemistry	167
Biology	169
Chemistry	175
Geology	184
Mineralogy	189
Physics	194
Physical Education	199
GRADUATE COURSES	200
Requirements for Degree of Master of Arts	200
Requirements for Degree of Doctor of Philosophy	201
DEGREES, MEDALS, SCHOLARSHIPS, AND PRIZES, 1939	202

THE ACADEMIC YEAR*

THE HUNDREDTH SESSION of the university will begin on Wednesday, September 25th, 1940, at 8 a.m. Convocation will be held on Friday, May 16th, 1941.

1940

May 1—Written notice due at the Registrar's Office of candidates' intention to compete for Provincial Scholarships and Ontario Matriculation Scholarships.

July 2—Registration for Summer School. Registrations will not be accepted after July 3 except when special arrangements have been made *before that date*, and on these late registrations an additional fee of \$3 will be charged.

July 3—Summer School opens at 8 a.m.

July 15—Last day for receiving applications, accompanied by fees, for September examinations, or degrees, from intramural and extramural students.

Aug. 15—Summer School closes at 5 p.m.

Aug. 28—Arts supplemental examinations begin.

Sept. 1—Last day for receiving applications for the Robert Bruce Bursaries.

Sept. 10—Last day for registration of extramural students without extra fee.

Sept. 17—Last day for registration of extramural students with extra fee of \$3.

Sept. 23—Registration in Arts begins at 2 p.m. for students who are registering for the first time. Such students must submit certificates of vaccination.

Sept. 24—Last day for registration of students registering for the first time. A late fee will be charged after this date (\$3 on September 25 and \$1 a day thereafter).

*The term "Academic Year" used in connection with regulations and Courses of study refers to the period extending from October 1 to September 30.

Sept. 25—Registration of intramural students who have been registered in previous sessions (one day only). A late fee will be charged after this date (\$3 on September 26 and \$1 a day thereafter).

Sept. 26—Classes in Arts open at 8 a.m.

Oct. 5—Last day for registration of intramural students who have not previously obtained permission to register later.

Nov. 10—Last day for receiving applications and fees from extramural students for January examinations.

Dec. 1—First day upon which extramural students may transfer to intramural classes.

Dec. 18—Mid-year examinations begin.

Dec. 21—Christmas holidays begin at 11 a.m.

1941

Jan. 2—Examinations in half-courses of the first term begin at 2 p.m.

Jan. 6—Classes reopen at 8 a.m.

Last day for payment of second instalment of fees without penalty.

Jan. 15—Last day for receiving applications from candidates for the M. C. Cameron Scholarship in Gaelic.

Feb. 15—Last day for receiving applications and fees from extramural students for the April examinations and for degrees.

Mar. 15—Last day for receiving applications and fees for degrees from intramural students.

April 1—Last day for receiving manuscripts for university prizes, theses for degrees, and applications for Arts Research Fellowships, Leonard Fellowships and Khaki University Scholarships.

April 5—Class work closes at 12 o'clock noon.

April 10—Last day for extramural students to register for the summer session without extra fee.

April 11—Good Friday.

April 12—Examinations begin.

April 17—Last day for extramural students to add classes for the summer session with extra fee.

May 16—Convocation for conferring degrees, announcing honours, and distributing prizes and medals.

1940

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MAY							JUNE							JULY							AUGUST										
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S				
...	1	2	3	4	1	1	2	3	4	5	6	1	2	3		
5	6	7	8	9	10	11	...	2	3	4	5	6	7	8	...	7	8	9	10	11	12	13	...	4	5	6	7	8	9	10	
12	13	14	15	16	17	18	...	9	10	11	12	13	14	15	...	14	15	16	17	18	19	20	...	11	12	13	14	15	16	17	
19	20	21	22	23	24	25	...	16	17	18	19	20	21	22	...	21	22	23	24	25	26	27	...	18	19	20	21	22	23	24	
26	27	28	29	30	31	23	24	25	26	27	28	29	...	28	29	30	31	25	26	27	28	29	30	31
								30																							

SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
1	2	3	4	5	6	7	.....	1	2	3	4	5	6	.....	1	2	3	4	5	6	7	1	2	3	4	5	6	7
8	9	10	11	12	13	14	.....	6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14
15	16	17	18	19	20	21	.....	13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21
22	23	24	25	26	27	28	.....	20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28
29	30	.....	.....	.....	.....	.....	.....	27	28	29	30	31	.....	.....	24	25	26	27	28	29	30	29	30	31	.....	.....	.....	.....

1941

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
...	...	...	1	2	3	4	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	1	2	3	4	5	
5	6	7	8	9	10	11	2	3	4	5	6	7	8	2	3	4	5	6	7	8	6	7	8	9	10	11	12
12	13	14	15	16	17	18	9	10	11	12	13	14	15	9	10	11	12	13	14	15	13	14	15	16	17	18	19
19	20	21	22	23	24	25	16	17	18	19	20	21	22	16	17	18	19	20	21	22	20	21	22	23	24	25	26
26	27	28	29	30	31	...	23	24	25	26	27	28	...	23	24	25	26	27	28	29	27	28	29	30	...	...	...
														30 31													

MAY							JUNE							JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
...	...	...	...	...	1	2	3	1	2	3	4	5	6	7	..	..	1	2	3	4	5	...	...	...	...	1	2
4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9
11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16
18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23
25	26	27	28	29	30	31	29	30	27	28	29	30	31	24	25	26	27	28	29	30
																					31						

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TIME-TABLE OF LECTURES, 1940-41

	8 M.W.F.	9 M.W.F.	10 M.W.F.	11 M.W.F.	8 T.T.S.	9 T.T.S.	10 T.T.S.	11 T.T.S.	1 p.m.	2 p.m.	3 p.m.	4 p.m.
Bacteriology			10, M.W.									
Biblical Lit.									1, T.T.F.			
Biochemistry				16, M.F.					18, Th., F.			
Biology	1	11, M.W.	17, M.W.		16, T.T. 21, T.T.	10, T.T.	15, T.T. 45	18, T.T.				
Chemistry		13, M.W.	1, 15a, W.F. 25, M.	12, W.F. 21b, W.F.	25, Tu.	14, T.T.	17, T.T. 24, T.T.	2, T.T. 22, T.T.	3, Th.			
Classical Lit.						1						
Economics, Commerce and Politics	Com. 50a Com. 60 Eco. 29b	Eco. 13a Eco. 28b Pol. 32	Pol. 2 Eco. 21	Com. 54	Eco. 12	Eco. 4 Com. 66b Com. 67a	Com. 64	Com. 52 Com. 63 Pol. 35		10, M.W.F. 11a, M.W.F. 11b, M.W.F. 16, T.T. 33, Th.		
English		2(A, B) 14a, 14b	1 18	3, 4 22	1	20	10	2 (C, D) 16b, 17a				
French		11	2, 3	1, 10, 20		1	2, 3	12, 21				
Geology		11, W.F.	14a, W.F. 15, M.	1, M.W. 113, M. 114, F.		13, T.T.	10b, T.T.	113, Th. 114, Tu. 15, Tu.	15, Th. 17, M. 1-5			
German		10	2			1, 12a, 13b	A					
Greek			26	1, 2, 21		A, 10		Gk. & Rom. Hist. 4	A(M)			
Hebrew	1				2							
History		12, 17	5, 13	11b, 14a, 27	3	16, 18a, 19b	20a, 21b	1	28a, T.T. 29b, T.T.	24, M.W. at 1.30-3		
Latin			1, 15				10, 21	2				
Mathematics	2 12a, 15b	Hon. Group A		10a, 11b	2 14a, 16b	Ast. 1, Hon. Group A	1	3a, 7b				
Mineralogy	1, F. (1st and 2nd term)	1, M. (1st term) 1, M.F. (2nd term)	10a, M.F. 10b, M.	12, W.F.	11, T.T.	10b, S.				1, M. (2nd term)		
Philosophy		1	10	2, 3, 22		24a, 26b	14a, 19b	2, 4, 11	15, F. 1-3 W. 1-4		31, W. 3-5	
Physics			11, M.	16a, 20b 13b, M.W. 14a		2	10b, T.T. 12a, T.T.	1, 21a 17b, T.T.	11, F.			
Spanish		1	22	A		A, 10	2, 6			29, M.W.F.		

Lecture period: Monday and Thursday, 4-5. Studio period: Tuesday, 2-4, or Wednesday, 2-4.

Monday at 5, Wednesday and Friday at 4.30 p.m.

TIME-TABLE OF LABORATORY WORK

The numbers in parenthesis indicate the hours.

	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Bacteriology	10 (4-6)				10 (1-3)	
Biochemistry	16 (1-4)			18 (2-4)	18 (2-4)	
Biology	1 (Sec. A, 1-3) 16 (1-4)	10 (1-4) 17 (1-4)	1 (Sec. B, 1-3) 18 (1-4)	11 (1-4)	15 (1-4)	
Chemistry	17 (1-4)	3 (1-5) 12 (1-4) 14 (1-4) 15a (1-4) 24 (1-4)	12 (1-4) 14 (1-4) 22 (1-4) 24 (1-4) 25 (1-4)	1 (1-3) 2 (1-4) 13 (1-4)	2 (1-4) 24 (1-4)	12 (9-12) 22 (9-12)
Geology	11 (8-10) 17 (1-5) 113 (1-4)		1 (Sec. A, 1-3) 10b (1-3) 113 (9-12)	1 (Sec. B, 1-3)	114 (1-4)	114 (9-12)
Mineralogy	1 (1-3) or (3-5)	10a (1-3)	11 (1-3) (3-5)		10a (8-10) or (1-3)	10b (10-12) 12 (10-12)
Physics	17b (2-4)	1 (1-3) or (3-5) 10b (3-5) 12a (3-5)	1 (1-3) 11 (1-3)	2 (3-5) 14a (3-5) 13b (3-5)		

HISTORY OF THE UNIVERSITY

Queen's University owes its origin to the desire of the Synod of the Presbyterian Church in Canada, in connection with the Church of Scotland, for a ministry trained within the country. As early as 1832 the Provincial Government had been petitioned "to endow without delay an institution, or professorships, for the education and training of young men for the ministry in connection with the Synod." This and other representations failing of their object, steps were taken by the Synod to found a college at Kingston on the lines of the Scottish National Universities. On October 16, 1841, a Royal Charter was issued by Her Majesty Queen Victoria for the establishment of Queen's College, Kingston, and the first classes were opened in March, 1842, with the Rev. Dr. Liddell as Principal. Funds were provided in part by grants from the Presbyterian Church in Scotland and from the Canadian Government, and in part by liberal subscriptions from the friends of the young and growing University. In 1867-68, however, the withdrawal of the Provincial grant, and the failure of the Commercial Bank, almost brought financial disaster. But the crisis was met by the determination of Principal Snodgrass and other self-denying workers, chief among whom was Professor Mackerras. The country was canvassed for subscriptions, and as a result of the widespread interest aroused, \$113,000 was added to the endowment.

In 1877 Principal Snodgrass was succeeded by the Rev. G. M. Grant, who for a quarter of a century built with brilliant success upon the foundation laid by his predecessors. Under him the University gained rapidly in size and prestige. By 1881 Queen's had a new building, an enlarged staff, and a great increase of students. In 1887, as the result of an effort in commemoration of the Queen's Jubilee, \$250,000 was raised, resulting in further extension, and in the establishment of new professorships.

Principal Grant died in 1902, and was succeeded in the following year by the Very Rev. D. M. Gordon. In 1916, owing to ill-health, Principal Gordon resigned his position, but continued in office until the autumn of 1917, when the Rev. R. Bruce Taylor was appointed as his successor. In 1930 Principal Taylor resigned his position to live abroad and Dr. J. C. Connell was appointed Acting Principal. He held this position for four months, until October, when W. Hamilton Fyfe, Headmaster of Christ's Hospital, England, and formerly Fellow of Merton College, Oxford, was installed as Principal of the University. Principal Fyfe resigned in 1936 to accept the Principalship of the University of Aberdeen. Dr. Fyfe was succeeded by Principal R. C. Wallace, President of the University of Alberta from 1928 to 1936.

In 1854 the Medical Faculty of Queen's was established. It was re-organized in 1865 as the Royal College of Physicians and Surgeons in affiliation with the University, but in 1891 the original status was resumed. Excellent facilities for clinical work are provided in the Kingston General Hospital, Hotel Dieu, and the Ontario Hospital.

Queen's led the way in co-education. As early as 1870 special classes in English and other subjects were formed for women, but Courses leading to a degree were not thrown open to them until 1878-79. In 1880 co-education was extended to the medical course, and in 1883 a separate Women's Medical College was opened and affiliated with Queen's. It was closed, however, in 1894, as similar facilities were offered in Toronto and elsewhere.

The School of Mining was founded in 1893 under an Ontario charter. For several sessions all its departments were housed in Carruthers Hall, which had been erected in 1891, but in view of the rapid growth of the School the Provincial Legislature in 1900 provided for its accommodation two large buildings, Ontario Hall for the Departments of Physics, Geology and Mineralogy, and Fleming Hall for the Departments of Civil, Mechanical, and Electrical Engineering. In 1911 the Provincial Government erected Gordon Hall, which is entirely used for the teaching of Chemistry, and, through the generosity of Professor Nicol and other graduates, Nicol Hall was built to provide class rooms and laboratories for the Department of Mining and Metallurgy. The School of Mining, which since 1893 had been under the control of a separate Board, was in 1916 amalgamated with the University, and now constitutes its Faculty of Applied Science.

In 1907 the Ontario Government established at Queen's a second Faculty of Education for the purpose of providing professional training for teachers in the secondary schools of the Province. In 1920, however, the work of the Faculty was discontinued because of the decision of the Government to extend the scope of the Normal Schools and to create in Toronto the Ontario College for Teachers.

There is now on the University Campus a stately group of buildings, comprising the Old Arts Building (now the Theological Building); Carruthers Hall (Civil Engineering); Kingston Hall (Arts), the gift of the city of Kingston; Grant Hall, erected by students, graduates and friends in honour of Principal Grant; Ontario Hall (Physics, Chemical Engineering); Fleming Hall (Mechanical and Electrical Engineering); Gordon Hall (Chemistry); Nicol Hall (Mining and Metallurgy); the Medical Building (Anatomy, Pharmacology and Preventive Medicine); the Medical Laboratories Building; the new Gymnasium; Miller Hall (Geology and Mineralogy), named in memory of the late Dr. W. G. Miller; the Observatory; the Douglas Library, named in memory of Dr. James Douglas, a former chancellor of the University, who contributed \$150,000 to its cost; Ban Righ Hall, the residence for women erected through

the efforts of the Alumnae Association, and the Richardson Pathological Laboratory. The Province of Ontario, besides its generous gifts of Ontario, Fleming, and Gordon Halls, contributed \$150,000 to the Douglas Library and \$125,000 to the new Central Heating and Power Plant. The City of Kingston, besides providing Kingston Hall, made a gift of \$150,000 for its reconstruction and fire-proofing in 1932. The Craine Building, named in honour of Dr. Agnes Douglas Craine who left a capital sum of \$375,000 for the teaching of Biochemistry, was opened in 1937.

Queen's University, though founded by a church, was dedicated to the nation. As its constituency expanded, its constitution was gradually broadened, until finally in 1912, as a result of an amicable arrangement between the Presbyterian Church and the Trustees of the University, an act was passed by the Dominion Parliament removing the last vestige of denominational control.

The endowment of the University is at present about \$3,500,000, and the annual income, derived from all sources, is over \$800,000. The registration of students has grown from 665 in 1900 to over 3,800 in the present session, and Queen's has become nation-wide in its work and influence.

GOVERNMENT AND ADMINISTRATION

The administration of the University is vested in the Board of Trustees, the University Council, the Senate, and the Faculty Boards.

THE BOARD OF TRUSTEES

The Board of Trustees consists of *ex-officio* and elective members. The former are the Chancellor, the Principal, and the Rector. The latter consist of (1) one representative from each affiliated college, (2) representatives as provided for by the Statutes from (a) the University Council, (b) the Benefactors, (c) the Graduates, and (3) members elected by the Board of Trustees.

The functions of the Board of Trustees are to manage the finances, to possess and care for the property, to procure legislation, to appoint instructors and other officers, and in general attend to such external matters as do not relate directly to instruction.

THE UNIVERSITY COUNCIL

The University Council consists of the Chancellor, the Trustees, the members of the Senate, and an equal number of members elected by the Graduates from their own members.

The annual meeting of the Council is held on the Thursday immediately preceding the spring Convocation.

The Functions of the Council are:

(1) To elect the Chancellor, except when two or more candidates are nominated, in which case the election is by registered graduates.

(2) To elect six trustees, two of whom shall retire annually.

(3) To make by-laws governing the elections of (a) the Rector by the registered students, (b) seven trustees by the benefactors, (c) six trustees by the University Council, (d) six trustees by the graduates.

(4) To discuss all questions relating to the University and its welfare.

(5) To make representation of its views to the Senate or the Board of Trustees.

(6) To decide on proposals for affiliation.

(7) To arrange all matters pertaining to (a) its own meetings and business, (b) the meetings and proceedings of Convocation, (c) the installation of the Chancellor, (d) the fees for membership, registration and voting.

THE SENATE

The Senate consists of:

The Principal.

The Vice-Principal.

The Principal of Queen's Theological College.

The Dean of the Faculty of Arts.

The Dean of the Faculty of Applied Science.

The Dean of the Faculty of Medicine.

Three Professors elected by the Faculty of Arts.

Three Professors elected by the Faculty of Applied Science.

Three Professors elected by the Faculty of Medicine.

Two Professors elected by the Faculty of Queen's Theological College.

The Functions of the Senate are:

(1) To determine all matters of an academic character which concern the University as a whole.

(2) To consider and determine all courses of study leading to a degree, including conditions of Matriculation, on recommendation of the respective Faculty Boards; but the Senate shall not embody any changes without having previously presented these to the Faculty.

(3) To recommend to the Board of Trustees the establishment of any additional Faculty, Department, Chair, or Course of Instruction in the University.

(4) To be the medium of communication between the Alma Mater Society and the Governing Boards.

(5) To determine all regulations regarding the social functions of the students within the University, and regarding the University Library and University Reading Rooms.

(6) To publish the University Calendars.

(7) To conduct Examinations.

(8) To grant Degrees.

(9) To award University Scholarships, Medals, and Prizes.

(10) To enforce the Statutes, Rules, and Ordinances of the University.

(11) And generally to make such recommendations to the Governing Boards as may be deemed expedient for promoting the interests of the University.

THE FACULTY BOARDS

The Faculty Boards are constituted as follows:

For the Faculty of Arts and for the Faculty of Applied Science the Dean, Professors, Associate Professors, Assistant Professors, and Lecturers of each Faculty (in Arts, after one year's experience) have power to meet as separate boards, and to administer the affairs of each Faculty under such regulations as the Board of Trustees may prescribe.

For the Faculty of Medicine, the Dean, Professors, Associate Professors, and Assistant Professors have power to meet as a separate board, and to administer the affairs of the Faculty under such regulations as the Board of Trustees may prescribe.

The Principal and Vice-Principal are *ex-officio* members of each of the Faculty Boards.

The Functions of the Faculty Boards are:

(1) To recommend to the Senate courses of study leading to a degree, and the conditions of admission.

(2) To decide upon applications for admission or for change of course, subject to the regulations of the Senate.

(3) To submit to the Senate names for both ordinary and honorary degrees.

(4) To arrange the time-table for classes and to edit the Faculty Calendar, subject to the approval of the Senate.

(5) To control registration, and determine the amount of fees and manner of payment, subject to the regulations of the Senate and the approval of the Board of Trustees.

(6) To deal with class failures.

(7) To exercise academic supervision over students.

(8) To make such recommendations to the Senate as may be deemed expedient for promoting the efficiency of the University.

(9) To award Faculty Scholarships, Medals, and Prizes.

(10) To appoint within the limits of the funds made available by the Trustees such sessional assistants, fellows, tutors, and demonstrators as shall be needed to give instruction in the subjects taught by the Faculty.

(11) To pass such regulations and by-laws as may be necessary for the exercise of the functions of the Faculty.

OFFICERS OF ADMINISTRATION

CHANCELLOR

PRINCIPAL AND VICE-CHANCELLOR

ROBERT C. WALLACE, M.A., D.Sc., Ph.D., LL.D., F.G.S., F.R.S.C.

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The Miller Memorial Museum, named in memory of the late Willet G. Miller, formerly Provincial Geologist of Ontario, has recently been erected for the Departments of Geology and Mineralogy. The main floor is entirely devoted to museum purposes and contains among other things an excellent collection of economic minerals used in industrial processes; a collection of at least a thousand mounted individual crystals; large collections illustrating the systematic classification of minerals and rocks; another illustrating the ores found particularly in Canadian mines, a stratigraphic assembly of rocks and a paleontological collection illustrating the geologic life record.

An Ethnological collection of weapons, utensils, dresses and ornaments is also housed in the east wing of the museum.

The Biological Museum, in the Old Arts Building, has a large Botanical collection illustrating fully the flora of North America, Europe, Asia, South Africa, and Australia; a Zoological collection representing the Canadian fauna by a large number of prepared specimens of mammals, birds, reptiles, fishes, insects, and mollusca.

THE LABORATORIES

The Biological Laboratories are on the main floor and in the basement of the Old Arts Building. There is a large laboratory for General Botany, one for General Zoology, and one for Medical Biology, as well as smaller laboratories for Plant Physiology and Advanced Botany. Laboratories are available also for research in Plant Physiology, Cytology, and the growth of populations. A very carefully arranged and classified collection of representative invertebrate animals as well as a small but growing entomological collection are available for study. These supplement the Herbarium and the collection of larger animals in the Museum.

The Chemical Laboratories are in Gordon Hall. On the fourth floor are the laboratories of Medical Organic, Biochemistry, and Water Analysis. On the third floor are two laboratories for General Chemistry, and a laboratory for Electro-chemistry and Colloid Chemistry. On the second or main floor are two laboratories for Quantitative Analysis, two for Organic Chemistry, and one for Industrial Chemistry. On the first or basement floor are three laboratories for Qualitative Analysis, and two for Physical Chemistry. Besides these there are a number of small separate laboratories for research work.

The Physical Laboratories occupy the major part of Ontario Hall. The basement contains the large elementary laboratory, the liquid air room, numerous research laboratories and the research workshop. The main floor is given over to undergraduate lecture and laboratory rooms. The second floor has two large lecture rooms, laboratory room for advanced undergraduate classes and for research. The attic is used for workshop and storage purposes.

The Geological and Mineralogical Laboratories are in Miller Hall. In the basement is a laboratory for the preparation of rock sections and for photography and an X-ray laboratory equipped with a Hilger X-ray spectrograph. On the second floor a laboratory occupying the west wing is for elementary classes in Geology. Along the north side of the building is a map room and the petrographical laboratory. On the south side a large draughting room is used by senior students for the preparation of maps and sections required in field courses. On the third floor at the west end is a large

laboratory for blowpipe analysis, a dark room equipped with a two circle goniometer, monochromator and Abbé refractometer. The east wing is a laboratory for post-graduate students, a dark room for photography, a chemical laboratory with space for twelve students, a grinding room for preparation of polished surfaces and an adjoining optical laboratory for petrographic and mineralographic work. Smaller laboratories for research work are equipped with a Hilger E316 spectrograph, a Hallimond Electromagnetic concentrator and facilities for examination of ores by polarized light.

THE OBSERVATORY

The Observatory has a transit room, a computing room, and an equatorial room with revolving dome. The equatorial telescope has a six-inch objective, declination and right ascension circles, and a driving clock. The transit has a three and a half inch objective. The further equipment consists chiefly of a striding level, a chronograph, a mean time clock, and a sidereal time clock.

FACILITIES FOR FIELD WORK

Geology and Mineralogy. In the vicinity of Kingston a greater variety of economic minerals and metalliferous ores is mined than in any similar area in Canada. Through the kindness of the managers the various mines may be visited by the Geology and Mineralogy classes, and students may thus obtain valuable information concerning field conditions.

Botany and Zoology. Exceptionally good facilities for field study are provided in the vicinity of Kingston by the great diversity of land surfaces and bodies of water. A wide range of plant and animal associations are within easy reach of the University.

FACILITIES FOR ATHLETICS

The University provides ample facilities for athletics. A new gymnasium, one of the finest in Canada, was built during the summer of 1930. In the University Grounds is a large covered skating rink with artificial ice. Adjoining the University is the football field, with the George Richardson Memorial Stadium given by Dr. James Richardson, formerly Chancellor of the University, in memory of his brother, Captain George Richardson, a Queen's graduate and a former athlete, who was killed in the Great War. There is room and equipment for all students who wish to take part in football, hockey, basketball, tennis, track athletics, swimming, boxing, fencing, or wrestling.

GENERAL INFORMATION

DEGREES

By the Royal Charter granted to Queen's College, it is "willed, ordained and granted, that the said College shall be deemed and taken to be an University, and that the students in the said College shall have liberty and faculty of taking the degree of Bachelor, Master, and Doctor in the several Arts and Faculties."

The degrees at present conferred under the statutes of the University are as follows:

I.—HONORARY DEGREES

Doctor of Divinity, D.D.; Doctor of Laws, LL.D.

II.—DEGREES BY EXAMINATION

1.—In Arts

Bachelor of Arts, B.A.; Bachelor of Commerce, B.Com.; Master of Arts, M.A.; Master of Commerce, M.Com.; Doctor of Philosophy, Ph.D.

2.—In Theology

Bachelor of Divinity, B.D.

3.—In Medicine

Doctor of Medicine, M.D.; Master of Surgery, C.M.; Diploma of Public Health, D.P.H.; Master of Science, M.Sc.(Med.).

4.—In Applied Science

Bachelor of Science, B.Sc.; Master of Science, M.Sc.

HOODS

Each Degree has its distinctive hood, as follows:

B.A.—Black, bordered with red silk.

B.Com.—Black, bordered with green silk.

M.A.—Black, lined with scarlet silk, bordered with scarlet silk.

M.Com.—Black, lined with green silk, bordered with green silk.

B.D.—White silk, bordered with crimson plush.

M.D. and C.M.—Scarlet silk, bordered with white silk.

M.Sc.(Med.)—Scarlet silk lined with white silk, bordered with white silk.

B.Sc.—Black, bordered with yellow (old gold) silk.

M.Sc.—Black, lined with yellow silk, bordered with yellow silk.

D.Sc.—Yellow silk, bordered with black.

D.D.—Purple silk, lined with white silk, bordered with white.

LL.D.—Black silk, lined with blue silk, bordered with blue.

Ph.D.—Black silk, lined with purple, bordered with white.

COUNCIL OF LEGAL EDUCATION OF GREAT BRITAIN

Queen's University has been approved by the Council of Legal Education of Great Britain and her degree examinations now qualify students for admission at any one of the four Inns of Court. Regulations for entry at any one of the Inns may be seen at the office of the Registrar.

THE STUDENTS' MEMORIAL UNION

The Students' Memorial Union was built to commemorate the service of the students and graduates of Queen's in the Great War.

Every male student is a member of the Union, which is really a club, where the men of all Faculties may meet in a University building designed for that particular purpose and privilege.

There are the usual club facilities, dining room, lounge, billiard room, reading room and committee rooms.

INFORMATION FOR WOMEN STUDENTS

The Dean of Women is ready to give women students information and advice regarding any matter pertaining to their life at the University. She should be notified immediately in case of illness.

The University Residences

Rooming and Boarding Houses

All first year women students under twenty-five and not resident in the city of Kingston are required to live in Ban Righ Hall or in one of its annexes.

(For the purpose of this regulation students who have credit for five or more classes at the University, taken either intramurally or extramurally, will not be considered as belonging to the first year.)

All other women students not resident in the city of Kingston are required to live either in one of the university residences or in a supervised rooming or boarding house.

The above regulations apply to the winter session only. During the summer the university residences are open for the benefit of all women students attending the Summer School and of students taking physical culture and Upper School courses.

Particular attention is called to the regulation that women students are under no circumstances permitted to lodge in houses in which any man other than the husband or son of the lodging-house keeper is living or lodging. This applies to the Summer School as well as to the regular winter session.

Application forms for admission to the university residences, full information concerning the residences, the rates charged and rules in force, lists of supervised rooming and boarding houses for the winter session, with information concerning the regulations governing them,

and lists of recommended rooming and boarding houses for the Summer School can all be obtained from the office of the Dean of Women.

Academic Dress

During the winter session women students are expected to wear academic gowns at lectures. These gowns may be ordered in Kingston after the opening of the session or they may be made from patterns purchased through the Dean of Women's office.

Gymnasium Costume

The gymnasium costume worn by women students is a regulation white shirtwaist and yellow shorts. White Badminton shoes and socks are worn with the suit.

Any bathing suit may be worn in the University swimming pool.

EXPENSES

At the present time the average cost of a student's board is from \$5.00 to \$6.00 a week, and for a room from \$2.50 to \$3.00 a week.

Lists of Boarding Houses for men students may be obtained from the Registrar. Meals may be obtained at the cafeteria in the Students' Union.

See FEES for other expenses.

PHYSICAL WELFARE OF STUDENTS

Every student is required upon registration to contribute \$4 towards a health insurance fund. In return the student has the free services of the University medical officer and a special hospital rate of fifty cents a day. Details of the plan are given in a printed leaflet which may be had on request.

All students in their first year are required to take physical training for two hours a week, unless excused on account of military training with the Officers' Training Corps. They are examined by the University physician, who prescribes proper exercises to correct any physical defects.

TUBERCULIN TESTS

Tuberculin tests will be given to all students entering Queen's University for the first time in September, 1940. This service will be free of charge but those who react positively are expected to have an X-ray examination at their own expense.

VACCINATION

Every student registering for the first time must submit evidence of successful vaccination.

ATTENDANCE AT CHURCH

All students are expected to attend a church of the denomination to which they belong.

During the session university sermons for students are given by preachers specially engaged by the University.

STUDENT SELF-GOVERNMENT

Queen's was the first University in Canada to introduce student self-government. All students are members of the Alma Mater Society, the chief instrument of student government, and are expected to share in its duties and responsibilities.

ALMA MATER SOCIETY LECTURE

In 1939, as a contribution from the student body to the Centenary Endowment Fund, the Alma Mater Society gave the University its accumulated reserve of \$1,711. The income will be used to provide an annual lecture to be known as the Alma Mater Society Lecture.

FRATERNITIES

By resolution of Senate no student registered with the University may form or become a member of any chapter of any externally-affiliated fraternity or sorority at or near Kingston.

THE CANADIAN OFFICERS' TRAINING CORPS

The Queen's University Contingent of the C.O.T.C., formed at the outbreak of the last war under Lieutenant-Colonel A. B. Cunningham, was organized as a Unit of the Militia in February, 1915. Reorganized after the war by Colonel A. Macphail, C.M.G., D.S.O., it is now commanded by Lieutenant-Colonel R. O. Earl.

Training in infantry and artillery is provided for students in the Faculty of Arts. The training prepares for examinations held by the Department of National Defence. Successful candidates qualify for the rank of Lieutenant in the service in which they have been trained.

The American Legion Scholarship of the value of \$100 has been established by Dr. George Hayunga of New York. This scholarship is awarded annually to the member of the Queen's University Contingent who obtains the highest marks on the C.O.T.C. examinations provided that he has obtained high standing on his academic Course.

EMPLOYMENT SERVICE

An Employment Service has been in successful operation at the University for several years. It is under the jurisdiction of the Service Control Committee of the Engineering Society and administered by the Secretary of the General Alumni Association. It is financed by the Engineering Society and the University. The objects of the Service are to assist graduates in all Faculties to secure suitable positions, and to help students to obtain work during vacation periods.

Communications should be addressed: Manager, Employment Service, Queen's University.

REGISTRATION

All students are required at the beginning of each session to have their names entered upon the University Register.

Intramural students must register *in person*, paying full fees for the session. Those registering before the opening of the session will be charged the regular fee, but those registering on or after the first day of the session will be charged an extra fee of \$3. In addition, those who have not previously obtained permission to defer registration must pay a special late fee of \$1 a day from September 26 to October 5. No student may register after October 5 unless he has obtained special permission before the opening of session.

For Extramural registration see REGULATIONS REGARDING EXTRAMURAL WORK.

ADMISSION TO THE FACULTY OF ARTS

1. Candidates desiring to enter the Faculty of Arts should make application during the summer on forms supplied by the Registrar.

The application should be accompanied by matriculation or other certificates.* These will be returned when the candidate's standing is determined.

I—ADMISSION BY MATRICULATION

2. Matriculation examinations are conducted for the Universities of Ontario by the University Matriculation Board. Details regarding these examinations may be found in a separate publication entitled **ENTRANCE REQUIREMENTS**. This booklet contains also a list of the Entrance and Matriculation Scholarships and the conditions of award.

3. There are two grades of Matriculation, elementary and advanced, called respectively *Pass* and *Honour* Matriculation.

A. Pass Matriculation

4. The subjects of Pass Matriculation are as follows: *Latin, English, Canadian and Ancient History* (with Music as an option for Ancient History), *Mathematics*, and any two of the following: *Greek, German, French, Spanish or Italian, Experimental Science* (Physics and Chemistry) or *Agriculture*.

There are two papers in each of the six subjects and the pass standard is fifty per cent. in each paper.

5. Candidates offering Pass Matriculation for admission must have an average of sixty per cent. on the twelve required papers. Such candidates will be admitted to the first year in Arts and may expect to graduate in four years if on a Pass Course, five years if working towards an Honours degree.

B. Honour Matriculation

6. Honour Matriculation examinations are held in the following subjects:

Latin (two papers), *English* (two papers), *Modern History* (one paper), *Mathematics* (Algebra, Geometry, Trigonometry, and Problems,

*Candidates holding certificates from the Department of Education of Ontario should send their certificates to the Registrar, Queen's University, in order to have standing allowed. Candidates holding certificates from Departments of Education outside of Ontario should write to the Departments concerned asking that their marks be sent to the Registrar who will then advise regarding the standing allowed.

one paper in each), *Greek* (two papers), *German* (two papers), *French* (two papers), *Spanish* (two papers), *Physics* (one paper), *Chemistry* (one paper), *Biology* (one paper in each of Zoology and Botany).

The pass standard is fifty per cent. in each paper.

7. Candidates presenting certificates covering four or five subjects of Honour Matriculation may be granted *pro tanto* credit in the corresponding courses of the first year, but not in more than five. Those presenting certificates in fewer than four subjects will be granted credit only in the subjects in which their standing is class I. Such candidates must have an average of 60 per cent. on the twelve papers of Pass Matriculation.

8. Candidates who have Honour Matriculation standing in a science (Physics, Chemistry, or Biology) and wish to proceed to further work in the subject may do so according to the following regulations:

(i) If they have credit standing on Honour Matriculation they must repeat in full the corresponding course at the University and pass the final examination before they can proceed to the next course in the subject.

(ii) If their standing on Honour Matriculation is Class III they must repeat in full the corresponding course at the University but they may take along with it the next course as one of their five regular classes.

(iii) If their standing on Honour Matriculation is Class II they must pass the final examination in the corresponding course at the University, and unless they can present evidence of having satisfactorily completed laboratory work in connection with the course they must repeat the laboratory work at the University in whole or part as the department concerned may decide. This work may be taken along with course 2 in the subject in question.

(iv) If their standing on Honour Matriculation is Class I, they may proceed without conditions.

(v) Students taking further work in Biology must register in the first year in that branch (Botany or Zoology) in which they plan to specialize.

9. Mathematics 1 will be granted on any two of Algebra, Geometry, and Trigonometry of Honour Matriculation. Students with standing in only two of these subjects, who wish to proceed to further work in Mathematics, must make up the third subject. They may do this by taking special tutorial classes offered by the Department of Mathematics. This tutorial work may be taken along with Mathematics 2.

10. Candidates with the First Class Interim Certificate who have successfully qualified for the Permanent First Class Certificate by

attending a second year at an Ontario Normal School will be allowed towards an Arts degree a second year course in each of English and History.

11. Candidates with Honour Matriculation in five subjects may expect to graduate in three years if on a Pass Course.

12. No allowance will be given for credits on Honour Matriculation or similar non-academic examinations if such credits are earned subsequent to a candidate's first registration at Queen's University.

13. Candidates preparing for admission to a Course for B.A. with Honours will receive the same allowance in first year on Honour Matriculation standing as if they were on a Pass Course, since the Honours work does not begin in first year. "First Year" here means one year following Pass Matriculation on the five-year Course for the Honours B.A. degree.

14. Candidates for admission to Honours Courses who are taking Honour Matriculation work should write on all the papers of the two subjects which will be the Major and Minor for the degree of B.A., and three others chosen from the six compulsory courses on the degree Course they wish to follow. Under every subject in the departmental regulations in this calendar will be found a complete outline of the courses for degree if that subject is to be the Major and under clause (d) will be found the compulsory classes for that particular Course.

II—ADMISSION BY EQUIVALENT EXAMINATION

A. Examinations Equivalent to Pass Matriculation

15. The following certificates are accepted for Pass Matriculation in the subjects which they cover provided that 50% has been made in each paper.

Alberta	Third Year High School.
British Columbia	Junior Matriculation (Grade XII).
Manitoba	Grade XI.
New Brunswick	Junior Matriculation.
Newfoundland	Associate (Junior).
Nova Scotia	Grade XI (average 60, minimum 50).
Ontario	Middle School.
Prince Edward Island	Honour Diploma or First Class License or Second Year Certificate from Prince of Wales College.
	{ McGill Junior Matriculation.
Quebec	{ Quebec High School Leaving.
Saskatchewan	Grade XI.

B. Examinations Equivalent to Honour Matriculation

16. The following certificates are accepted for Honour Matriculation in the subjects in which at least fifty per cent. has been made in each paper.

Alberta	Fourth Year High School.
British Columbia	Senior Matriculation (Grade XIII).
Manitoba	First Class.
New Brunswick	Grammar School.
Newfoundland	Associate Grade.
Nova Scotia	Grade XII.
Ontario	Upper School.
Prince Edward Island	Honour Diploma of Third Year, Prince of Wales College.
Quebec	McGill Senior Matriculation.
Saskatchewan	Grade XII.

III—ADMISSION TO ADVANCED STANDING

17. Students applying for admission to advanced standing with allowance on credits at another University must have an official certificate of standing forwarded to the Registrar for consideration with a statement of honourable dismissal. They will be given equivalent standing but must comply with all regulations of Queen's University governing the Course they wish to complete.

No credits obtained at another institution will be accepted for any of the last five classes offered by a candidate for degree at Queen's.

IV—ADMISSION BY SPECIAL REGULATION

18. An unmatriculated student who presents a certificate showing that he is over the age of twenty-one, may be admitted if he satisfies the Board of Studies that he can profitably undertake university work.

A candidate admitted under this Regulation must remove his entrance condition either by obtaining credit in course 1 of the subjects of Matriculation which he lacks or by passing special examinations in these subjects within two years of entrance. The special examinations are based on the Pass Matriculation Course as prescribed by the Department of Education.

REGULATIONS REGARDING EXTRAMURAL WORK

All inquiries regarding regulations should be addressed to the Registrar.

In order to meet the needs of students who are unable to do all their work in residence, of teachers in actual service who wish to improve their professional qualifications in certain subjects, and of those persons in general who, though unable to attend the regular classes, are yet desirous of studying under competent direction, the University conducts a system of extramural instruction. This work is as nearly as possible identical with that taken up by the intramural students and the same examinations are set for all. Candidates who fulfil the requirements of residence and otherwise comply with the conditions stated below may qualify for the various degrees to which their Courses lead.

For details of the work offered for the summer of 1940 and winter 1940-41 see page 47.

Conditions of Admission to Extramural Work

1. Extramural students must be residents of Canada. Students residing outside of Canada who have attended the University for one session or who have taken work extramurally for one session are allowed to complete their Course.

2. Ordinarily extramural students must be twenty-one years of age before registering for the first time. Fully matriculated students under twenty-one may be allowed to register extramurally if they can satisfy the Faculty that it is impossible for them to attend intramurally at the time.

Unmatriculated students who present certificates showing that they are over the age of twenty-one years may be admitted conditioned in the subjects of Matriculation if they satisfy the Board of Studies that they can profitably undertake University work. Candidates admitted under this regulation must remove entrance conditions by obtaining credit in course 1 of the subjects in which they lack Matriculation.

3. Except with the permission of the Board of Studies, no students are permitted to take work at Queen's in the same year as they are taking work at any other educational institution or writing on any outside examination other than Pass Matriculation or its equivalent.

4. Intramural students may become extramural students only by special permission of the Faculty. Students registered intramurally in the winter session will not be allowed to continue their courses extramurally in the following summer, unless by special permission they have been allowed to postpone one or two courses until the summer. In

such cases, however, they must attend the Summer School. But students may, in preparation for the September supplemental examinations, register for instruction in courses in which they have failed in the sessional examinations of the previous January or April, if these courses are offered extramurally in the summer.

Registration in Extramural Courses

5. Application for registration must be made on forms supplied by the Registrar, and must satisfy the conditions stated in section 6. They must reach the University by the dates mentioned in section 7; and they must be accompanied by the fees specified in section 8.

6. (a) Extramural students may not register for more than four courses in the academic year. They may register in the winter (September-April) for as many as two courses or four half-courses, and in the summer* (April-September) for two courses or three half-courses.

(b) The courses selected in each year are subject to the approval of the Board of Studies and, in the case of candidates for degrees, must conform to the regulations for concentration, distribution, and sequence of work.

(c) Before registering students should consult the time-table of lectures, as they may not register for either winter or summer work in two classes which meet at the same hour. The summer time-table is given in the Announcement of Summer School and Extramural Work.

7. (a) Extramural students should register two or three weeks before the session opens in order that they may receive the preliminary instructions and provide themselves with books in time to start work promptly. They will be allowed to register up to September 10 for the winter or April 10 for the summer at the regular fee, and up to September 17 or April 17 on payment of an extra fee of \$3. Only under exceptional circumstances and by special permission of the Faculty will registration be accepted after these dates.

(b) Extramural students do not receive the examination returns before the last date of registration but should send fees to the Registrar within the required dates, stating the classes in which they wish to register if successful in their examinations. Necessary changes may be made later.

8. The fees payable upon application for registration are as follows:

*The Calendar is issued in the spring but is not in force until the following autumn. The work of advanced whole courses given at the Summer School, will be based on the prescription in the calendar for the next session, since these courses must be completed during the following winter.

(a) *Entrance Fee.* Students registering for the first time are required to pay an entrance fee of \$5.

(b) *Registration Fee.* A registration fee of \$10 must be paid once in each year. There is an extra fee of \$3 for late registration. (See section 7(a).)

(c) *Tutorial Fee.* The tutorial fee is \$12 for each whole course and \$6 for each half course (indicated in departmental prescriptions by the letter *a* or *b* after the number). If the required amount of work in a course is not completed in the session, winter or summer, in which it is begun, the tutorial fee must be paid again, and the full work of the course sent in. See also section 22.

(d) *Pro Tanto.* Students wishing to have courses credited towards a degree on work done at other academic institutions, must pay a fee of \$5 for this *pro tanto* allowance at the time of their first registration.

Minimum Residence Requirements

The University does not undertake to make it possible for a student to get a degree by satisfying merely the minimum residence requirements given below, since in some subjects only a limited amount of instruction can be given extramurally or in the Summer School. In the Sciences, for example, all the laboratory work must be done at the University and a student specializing in these subjects may find it necessary to spend two or three years in residence.

9. Candidates for a degree must take at least nine courses in attendance at the University, either during regular winter sessions or at the Summer School. Candidates for an Honours degree must attend during at least one regular winter session. In most cases an Honours Course will require much more than this minimum time. Examinations must be passed after each session's work.

The Department of Education is willing to accept attendance at four sessions of the Summer School as covering attendance requirements for the Inspectors' Course.

Manner of Conducting Extramural Classes

(See also section 22)

10. The method of giving extramural instruction necessarily varies with the subject. Detailed information is contained in the instruction sheets provided from time to time. These specify the prescribed reading, assign exercises and essays to be written, and in some cases give the substance of intramural lectures. The first instalment of work is sent to students as soon as they register. The date of each essay or exercise coming in and of each criticism or fresh piece of work going out is recorded at the Registrar's Office. Each essay or exercise is examined and returned to the writer with criticisms and suggestions.

Students should address their work and all enquiries regarding their work to the Registrar, Queen's University, Kingston, Ontario.

Regularity of Work

11. All exercises must be sent in by the dates specified or they will be returned unmarked and without credit.

Transference from Extramural to Intramural Classes

12. Extramural students may become intramural students during the winter session at any time after December 1, *in those courses in which they have satisfactorily completed the work prescribed up to the date of transferring.* Fees already paid will be applied on intramural charges.

13. Students who transfer to intramural work before January may add enough half-courses to give them five classes in the second term, if such half-courses are available and the prerequisite work has been done.

Library Facilities for Extramural Students

14. Extramural students are expected to buy all text-books prescribed. They should also make generous provision for the purchase of other books bearing on their work, as the Library cannot undertake to provide enough duplicates to serve all the needs of students not in residence.

15. Three books may be borrowed at one time, provided that no two relate to the same piece of work. Unless a special arrangement is made, a book may be kept only two weeks from the date on which it is received.

16. Extramural students must send to the Librarian a deposit of \$2 for the use of one book at a time, \$4 for two books and \$5 for three. Books may be exchanged as often as the borrower wishes; and when all are returned, the deposit, less the amount spent for postage, will be repaid on request. No fee is charged for the use of the Library.

17. All communications concerning books and deposits must be addressed to The Librarian, Queen's University, Kingston, Ontario.

Regulations Regarding Examinations

Intramural and extramural examinations are the same in all subjects and are held at the same time. It is impossible, therefore, to modify the examination schedule to suit the personal convenience of students.

18. Examinations are held in January, April, and September, as follows:—

(a) Examinations in half-courses of the first term are held in January (see page 6).

(b) Examinations in all whole courses and in half-courses of the second term are held at the end of April. Examinations in Pass courses (numbered under 10) and in such Honours courses as may be offered

in the summer, may be postponed till the autumn, but such postponement will lessen the amount of new work which may be completed in September.

(c) Ordinarily an extramural student may not write in September on more than two courses or three half-courses. He may, however, write on three courses, if examinations in one or more have been postponed from April.

19. Applications for examination in the particular subjects upon which a student proposes to write, accompanied by the proper fees, must reach the Registrar's office by November 15 for the January examinations, by February 15 for the April examinations, and by July 15 for the September examinations. The fees are \$3.00 for each half-course examination and \$6.00 for each whole course examination, with an additional charge of \$3.00 for late application, if accepted.

20. If the Registrar receives notice, at least ten days before the beginning of examinations, that a candidate will not write on a subject for which application has been made, the fee will be credited after the deduction of an administrative charge of two dollars.

21. Students will not be admitted to examination in any subject in which they have not fulfilled the requirements as to date of registration (see section 7) and regularity of work (see section 11). Candidates are expected to send in all the essays and exercises at the dates specified, and the grade given on a particular course will be determined by the amount and quality of the work done. No candidate will be admitted to examination who has done less than seven-eighths of the prescribed work. The last of the written work should reach the University at least two weeks before examinations begin.

22. Students who in any session do not complete the required work in a course, must register again, pay all the fees and do all the exercises.

23. An extramural student who fails in a subject may write one supplemental without repeating the work of the course. This supplemental must be written at the next examination period and may not be postponed. Supplemental examinations are held in September in all pass courses and in the first course in Honours.

24. Students who, having completed the required work in a given subject wish in some subsequent academic year merely to take the examination, must pay the registration fee of \$10.00 as well as the examination fee specified in Section 19. The registration fee is payable at the beginning of the session.

Students are warned that they postpone examinations at their own risk, as no special papers will be set, even if courses are discontinued or radically changed. Candidates who postpone an examination for more than two years, must repeat the tutorial work.

25. Extramural students in any of the Modern Languages must satisfy the Department concerned as to their oral qualifications. When an oral examination is necessary, it must be taken at the University. Students attending the Summer School will be given an opportunity of completing the oral work in those languages in which courses are offered at the Summer School.

26. Practical examinations in Science must be taken at the University.

27. Examination centres have been established at most of the larger cities and towns throughout Canada and a list of such centres is sent to all extramural students a month in advance of the examinations. Consideration will be given to an application to establish a new centre. Such application, accompanied by the special fee of \$10, must be made by November 15 for January examinations, by February 15 for April examinations, and by July 15 for September examinations.

Determination of Standing

28. See sections 27 and 28 of GENERAL REGULATIONS on page 79.

Fees for Extramural Students

29. A full statement regarding fees may be found under FEES.

30. Extramural students who enter as intramural students during the winter session will have their extramural fees applied on intramural charges. (See section 12.)

31. *In no case will refunds be made.* In case of sickness, however, but under no other conditions, an application to have fees *carried over* will be considered if it is made within one month of registration and is accompanied by a doctor's certificate.

32. Cheques drawn on any branch of the Bank of Montreal will be received at par. In other cases 15 cents per \$100 should be added to cover bank charges. Remittances should be made by Post Office or Express order, by cheque, or registered letter.

Text-books

33. Texts may be obtained from the Technical Supplies Store, Queen's University Grounds.

EXTRAMURAL AND SUMMER SCHOOL WORK

On the following page a Table shows all the courses offered through Extramural and Summer School instruction in the summer of 1940 and the winter of 1940-41.

An explanation of this Table, together with the more important regulations, is given below in condensed form.

EXTRAMURAL AND SUMMER SCHOOL WORK — SUMMER 1940, WINTER 1940-41

REGULATIONS REGARDING EXTRAMURAL WORK

47

	Summer School compulsory	Summer Extramural: Summer School optional	Summer Extramural only	Summer School Comp. & Winter Extramural	Winter Extramural
Latin		1, 2		11, 21	1, 2
*Greek		A, 1 (or 2)			A, 1, 2
Greek&Rom.Hist.			4		4
Classical Liter.			1		1
English	4, 10, 18	2			1, 2, 14a, 14b, 18, 20
French	11a	1, 2		12	1, 2
German			A, 1, 2		A, 1, 2, 10
Spanish			A, 1, 2, 6, 10		A, 1, 2, 6, 10
Art	1				
Music	1				
History	18a, 19b	3	1	12	1, 3
Economics	11a	1, 4		12	4
Politics			2		2
Commerce	60		63		63
Philosophy	10	1, 2		15	1, 2, 3, 4, 10, 20
Biology	1, 10, 15,			19	
Chemistry	12a			1, 2, 3, 13	
Mathematics	10a, 11b, 14a, 16b	1, 2	3a, 7b		1, 2, 3a, 7b, 10a, 11b
Astronomy	1				
Physics	1, 2, 11, 12a, 13b				1, 2, 11 (continued at S. S.)
Geology	1				

* Pass courses in Greek and all Honour courses will be offered at Summer School only if a sufficient number of students register by April 10. Students registering in these classes will be notified regarding the Summer School as soon as possible after April 10.

I. SUMMER SCHOOL COMPULSORY

See Table under this heading. These courses are open only to those who attend the Summer School.

Registration required before April 10, with fee of \$10 if not paid in previous autumn.

No extramural tuition fee, except in courses 1 and 2 of the Sciences, in Biology 10, 15, Art 1, Music 1, English 4, Philosophy 10, and Astronomy 1, in which case there is payable on registration a tutorial fee of \$12 for each course, of which \$6 will be credited towards Summer School fees.

Preliminary work assigned on registration, but no extramural exercises except in courses 1 and 2 of the Sciences, and in Biology 10, 15, Art 1, Music 1, English 4, Philosophy 10 and Astronomy 1.

Summer School attendance and work compulsory. Fee \$42.50, payable July 2.

Examinations in September; or in January for the first term work and in April for second term work. Fee \$6 for each full course; \$3 for each half-course, payable before July 15 or on November 15 or February 15, according as examinations are written in September, January, or April.

II. SUMMER EXTRAMURAL; SUMMER SCHOOL OPTIONAL

See Table under this heading. These courses are offered in the Summer by Extramural work alone, or by Extramural work up to July, and Summer School work thereafter.

Registration required before April 10; fee of \$10 if not paid in the previous autumn.

Tuition fee of \$12 for each course, payable on registration. If a student attends Summer School \$6 of his tuition fee for each course will be credited on his Summer School fees.

Extramural work and exercises.

Summer School work and exercises optional; if taken, the fee is \$42.50, less half tuition fee paid, payable July 2.

Examinations in September; fee of \$6 for each course; payable before July 15.

III. SUMMER EXTRAMURAL ONLY

See Table under this heading. These courses are offered in the Summer only through Extramural work. They are not given in the Summer School.

Registration required before April 10, with fee of \$10 if not paid in previous autumn.

Tuition fee of \$12 for each full course and \$6 for each half-course, payable on registration.

Extramural work and exercises.

Examinations in September; fee \$6 for each full course; \$3 for each half-course, payable before July 15.

IV. SUMMER SCHOOL AND WINTER EXTRAMURAL

See Table under this heading. These courses are partly covered in the Summer School; the rest of the work is done extramurally in the winter.

For the purpose of determining the maximum number of classes which a student may take at one time, each class offered in this way will count as a full course in either the summer or the winter session.

Registration before April 10, with fee of \$10 if not paid in previous autumn.

Tuition fee of \$12 for each course, payable on registration.

Preliminary work assigned on registration but no summer extramural exercises.

Summer School attendance and work compulsory. Fee, \$42.50, payable July 2.

Winter extramural work in following winter; without additional fee if registration fee was paid in spring; otherwise, \$10.

Examination in April. Fee \$6 for each course, payable before February 15.

V. WINTER EXTRAMURAL

See Table under this heading. These courses are offered in the winter through extramural work. Laboratory work in the Sciences and oral work in the Languages must be done later at the University.

Registration required before September 10 with fee of \$10 if not paid in previous spring.

Tuition fee of \$12 for each full course and \$6 for each half-course, payable on registration.

Extramural work and exercises.

Examinations in January and April; fee \$6 for each full course; \$3 for each half-course, payable before November 15 or February 15, according as examinations are written in January or April.

An extramural student may take four courses in a year with not more than two at any one time, summer or winter.

The registration fee of \$10 is payable once in the year; tutorial fees in September or April when beginning each course.

Since the exact requirements for Honours in any subject have now been definitely fixed, it has been found possible to arrange a definite scheme for extramural and Summer School work, as follows:

A. In subjects other than the sciences extramural and Summer School offerings will together cover all courses numbered under 10 in any subject, and three Honours courses of which one will be given each year and the other two alternately. Under this plan a student may cover three Honours courses in addition to Pass classes in any subject.

THE SUMMER SCHOOL

The thirty-first session of the Summer School begins at 8 a.m. on Wednesday, July 3, 1940, and closes at 5 p.m. on Wednesday, August 15.

Students are expected to register on Tuesday, July 2. An extra fee of \$3 will be charged to those registering after July 3.

Courses will be given in Latin, Greek, French, English, History, Philosophy, Economics, Mathematics, Physics, Chemistry, Biology, Geology, Art, and Music. At the Summer School it is possible to cover about half the work done in the corresponding courses of the winter session.

The libraries and laboratories are available for use as in the winter session.

Ban Righ Hall, the women's residence, will be open during the summer and will accommodate one hundred students. Applications for rooms should be sent as early as possible to the Dean of Women.

Purpose of the Summer School

The Summer School offers the advantages of university study to those who can not attend the classes of the regular session.

It gives TEACHERS an opportunity to improve their scholarship in chosen lines of study, to observe methods of teaching, and to become acquainted with books and equipment not otherwise available.

It gives INTRAMURAL students who have lost standing through illness or other causes an opportunity of qualifying for the September supplemental examinations. Moreover, intramural students in their first or second years, who on account of ill health are unable to carry the required five courses, may, with the consent of the Board of Studies, take three or four courses in the winter and the rest extramurally in the summer, provided that they attend the Summer School.

It gives EXTRAMURAL students an opportunity to take the oral work required in the modern languages, to do in the laboratories the practical work required in the Science courses, and to satisfy the minimum residence requirements for the degree of B.A. (See section 9 under REGULATIONS REGARDING EXTRAMURAL WORK).

Admission

No examination is required for admission to the Summer School. The classes are open to all who desire to improve their scholarship or professional equipment. Candidates for a degree, however, must satisfy matriculation requirements before being admitted to the University work and examinations, and must register for summer work in April. Furthermore, they must submit in May and June at least seven-eighths

of the exercises and all the essays in those classes which require such work.

No student working for credit is allowed to register for more than two courses or three half-courses in the Summer School.

Examinations

No examinations are held in connection with the Summer School. Students desiring credit for their work should write at the regular University examinations in September. See sections 11, 18, 21, 22 under REGULATIONS REGARDING EXTRAMURAL WORK.

Fees

See FEES, page 53.

Further Information

The Announcement of the Summer School, containing full details concerning the work offered, is published each year in March, and is supplied on application.

All inquiries concerning the Summer School should be addressed to The Registrar, Queen's University, Kingston, Ontario.

FEES

Cheques tendered in payment of fees should be certified by the banks upon which they are drawn.

INTRAMURAL

Fees are payable each year upon registration.

A student is not registered and may not attend classes until he has paid the required fees.

Sessional Fee—including Registration, Tuition, Laboratory,
Library, Examinations\$150 00

Student Interests—including Health Insurance, Union, Faculty Societies, Alma Mater, Journal, and Athletics (the athletic fee which is part of student interests gives admission to all home games except playoffs) 23 00

Fees may be paid in two equal instalments, in which case an additional \$5 will be added to the first instalment. The first instalment and the laboratory deposit must be paid at the time of registration in September, the balance on or before January 6th, 1941. No student will be admitted to classes until the above conditions have been complied with, nor will he be permitted to continue the work of the second term until the fees have been paid in full.

GRADUATE FEES

Candidates for the degree of Master of Arts will pay a sessional fee of \$110 with student interest fees amounting to \$23. If taking any laboratory work they will pay \$10 additional on sessional fees and a deposit of \$10.

The fees specified below are payable as they are incurred.

Laboratory Deposit:

Deposit is required for all courses in Science (unused portion will be refunded at the close of the session):

Without Chemistry	5 00
With one course in Chemistry	10 00
With two or more courses in Chemistry	20 00

Special Charges:

Entrance fee	5 00
<i>Pro tanto</i> allowance of courses on work done elsewhere.....	5 00
Late registration (see also note, page 5), minimum	3 00
Change of courses after registration	2 00

Special fee for students in Commerce, third and fourth years	15 00
Late application—for examination or graduation	3 00
Special examinations given at the University when a regular examination is missed:	
One examination	5 00
Two or more examinations	10 00
Examinations at outside centres:	
Each whole course	6 00
Each half-course	3 00
Supplemental examinations:	
Each whole course	6 00
Each half-course	3 00

Special students not paying full fees:

Each course taken	40 00
(Student interests and Laboratory charges as above)	

A student not paying full fees who wishes to take for credit any course not required in his degree prescription must obtain permission to do so from the Departments concerned and must pay the fees for extra classes as laid down in the Calendar.

Graduation:

Bachelor of Arts (in Course)	10 00
Bachelor of Commerce	10 00
Master of Arts	20 00
Master of Commerce	20 00
Doctor of Philosophy	50 00
Doctor of Science	50 00
Extra fee for degree <i>in absentia</i>	10 00

EXTRAMURAL

The fees specified under the first two heads are payable upon registration; the examination fees are payable at the dates given in section 19 of REGULATIONS REGARDING EXTRAMURAL WORK.

Registration:

Entrance fee	\$ 5 00
Regular fee (covering twelve months)	10 00
Additional fee for late registration	3 00
Change of work after registration	2 00
<i>Pro tanto</i> allowance of courses on work done elsewhere.....	5 00

Tutorial:

Each course	12 00
Each half-course	6 00

Examination:

Each whole course, April or September	6 00
Each half-course, January, April, or September	3 00
Establishing new centre	10 00
Additional fee for late application	3 00

Graduation:

The same fees are charged as in the case of intramural students.

SUMMER SCHOOL

Full Summer School attendance (all students)	\$36 00
Athletics	3 00
Health Insurance	1 00
Summer School Association	2 25
Queen's Summer School Association Scholarship Fund.....	25
Laboratory deposit for Physics, Chemistry, Biology, Geology or Mineralogy	5 00
Additional fee for late registration	3 00

SCHOLARSHIPS, PRIZES, AND MEDALS

I—MATRICULATION SCHOLARSHIPS

For a list of Matriculation Scholarships and the conditions of award see the publication entitled SCHOLARSHIPS AND PRIZES.

II—SCHOLARSHIPS IN ARTS

Scholarship awards will be governed by the following regulations:

1. Scholarships may be held only by students in the Faculty of Arts in attendance the year following the award.
2. Scholarships will not ordinarily be awarded to students who have obtained less than first class standing.
3. A student may not hold more than \$300 in Faculty scholarship money in any one year.

LANGUAGE AND LITERATURE

DEPARTMENT OF CLASSICS

W. W. Near Scholarships in Classics

Founded by the late W. W. Near, Esq., of Toronto.

1. Value \$100: awarded to the student who has the highest standing in Latin 2.
2. Value \$100: awarded to the student taking Honours in Classics *or* Latin and French *or* Latin and French with Greek, who has the highest standing at the end of his penultimate year. Chief consideration will be given to the student's record in courses of the Department of Classics. When two competitors are of nearly equal merit, preference will be given to the one who is taking some Greek.

MacLennan Scholarship in Greek

Value \$20. Founded by the late Hon. Jas. MacLennan, LL.D., Toronto, to encourage the study of Greek in the University. Awarded on the results of the April examinations in Greek 1 to the best student who is proceeding to the Honours Course in Greek. Not to be held by any student unless in actual attendance, and not to be awarded unless a sufficient degree of merit is shown.

The Flossie May Bogart Scholarship in Greek

Value \$80. Founded by the late Mrs. I. G. Bogart of Kingston in memory of Flossie May Bogart. Awarded on the results of the April examinations to the student who has taken the highest standing in Greek 2. No award will be made unless a sufficient degree of merit is shown.

DEPARTMENT OF ENGLISH

Alexander Laird Scholarship in English 1

Value \$40. Founded in memory of the late Rev. Alexander Laird by his brothers and sisters and awarded annually to the student who makes the highest marks in English 1.

The James Cappon Memorial Scholarship in English 2

Founded by Miss Alice L. Macnee of Kingston in memory of Dr. James Cappon, formerly Head of the Department of English and Dean of the Faculty of Arts.

Value \$40: awarded to the student making the highest standing in English 2, provided that the student proceeds to further work in English the following year.

James C. Rogers Prize in English 2

A prize of the value of \$5 in books. Given by James C. Rogers, B.A., '94, to the student obtaining the highest standing in English 2.

The prize money will be paid only when it is contributed.

Special Scholarship for Highest Standing in Extramural English 2

Value \$25. Given by a graduate to the extramural candidate for degree who makes the highest standing in English 2, provided that the candidate proceeds with University work the following year. This Scholarship will be paid in two equal instalments on or about October 15 and March 15.

McIver Scholarships

Founded by J. B. McIver, formerly Treasurer of Queen's University.

1. Value \$50: awarded to the Honours student having the highest standing in English 2 and 10.

2. Value \$75: awarded to the student having the highest standing in English at the end of the first session after admission to Honours.

3. Value \$75: awarded to the student having the highest standing in English at the end of the second session after admission to Honours.

The '01 Fellowship in English

Value \$80. Established by the class which graduated in 1901. Awarded to a student who will act as tutor in English during the following session.

Arts '15 Scholarships

(The capital sum is not yet fully collected.)

Present value \$26. Founded as a memorial by the class of 1915. Awarded annually in turn by the Departments of English, Mathematics, and History to the student with highest standing in two Honours courses taken in the third year. Awarded in English in 1941, in Mathematics in 1942, in History in 1943.

McIlquham Foundation in English

(See page 73 for conditions governing award of prizes.)

Value \$20. Founded by the parents of Mr. J. Max McIlquham, a student at Queen's University, 1912-15, who was killed on service overseas. Awarded for the best original poem, short story, or play.

Wilhelmina Gordon Foundation in English

Established by the Imperial Order, Daughters of the Empire, in appreciation of the work of Professor Wilhelmina Gordon, who served as National Educational Secretary from 1923 to 1937.

Value \$25: awarded to the Honours student in English standing highest in Class I in the final year examinations, provided that the student is proceeding to graduate work at Queen's University.

DEPARTMENT OF FRENCH**W. W. Near Scholarships in French**

Founded by the late W. W. Near, Esq., of Toronto.

1. Value \$100: awarded to the student who has the highest standing in French 2.

2. Value \$100: awarded to the student making the highest standing in the first year of Honours work.

The Ottawa B'nai B'rith Scholarship in French

Value \$100: awarded to the student making the highest standing in the second year of Honours work.

Sir Wilfrid Laurier Memorial Scholarship

Value \$80. Founded by the Ontario Women's Liberal Association to perpetuate the memory of Sir Wilfrid Laurier. Awarded for proficiency in French conversation. Candidates must be Canadian-born English-speaking students, sons or daughters of a British subject by birth or naturalization, not of French parentage. The examination will be held in March of each year.

DEPARTMENT OF GERMAN**W. W. Near Scholarship in German**

Founded by the late W. W. Near, Esq., of Toronto.

Value \$100: awarded to the student who obtains the highest standing in German 2 and 10 provided that these classes are taken concurrently.

Susan Near Scholarship in German

Founded by the late Susan Near of Toronto.

Value \$50: awarded to the student who at the end of his first year of Honours studies has the highest standing in any one full course (or two half-courses) in Honours German.

DEPARTMENT OF HEBREW

Mary Fraser McLennan Prize in Hebrew

Value \$12. Founded in memory of Mary Fraser McLennan, of Lancaster, by her sons. Awarded to the student obtaining the highest standing in Hebrew 1, provided he intends to pursue a Theological Course in Queen's Theological College.

DEPARTMENT OF SPANISH

W. W. Near Scholarships in Spanish

Founded by the late W. W. Near, Esq., of Toronto.

1. Value \$50: awarded to the student who has the highest standing in Spanish 1.

2. Value \$50: awarded to the student who has the highest standing in Spanish 10.

Susan Near Scholarship in Spanish

Founded by the late Susan Near of Toronto.

Value \$50: awarded to the student who has the highest standing in Spanish 2 provided that that standing is Class I.

HISTORY AND SOCIAL SCIENCE

DEPARTMENT OF HISTORY

Andrew Haydon Scholarship in Colonial History

Value \$40. Founded by Senator Andrew Haydon, M.A., '93, LL.B. Awarded to the student with the highest standing in the Pass class in Colonial History (History 3).

Susan Near Scholarships in History

Founded by the late Susan Near of Toronto.

Two scholarships of the value of \$80 and \$70 respectively. Awarded to the students who, offering History as their Major subject, obtain the highest and the second highest standing in History at the end of the first session after admission to Honours.

Arts '09 Scholarship in History

Present value \$75. Founded by the class of 1909. Awarded annually to the Honours student in History with the highest standing in History courses taken in the penultimate year.

DEPARTMENT OF PHILOSOPHY

Susan Near Scholarship in Philosophy

Founded by the late Susan Near of Toronto.

Value \$100: awarded to the student taking the highest standing in Philosophy 2 (Psychology).

Isaac Cohen Scholarship in Philosophy

Value \$100. This Scholarship will be awarded annually to a student in Philosophy on the results of the year's work in Philosophy 1.

DEPARTMENT OF POLITICAL AND ECONOMIC SCIENCE

W. M. O. Lothead Scholarship in Economics

Value \$40. Founded by W. M. O. Lothead, M.A., '98, Kitchener, Ontario. The Scholarship will be awarded to the student taking the highest standing in the sessional examinations and classwork in Economics 4, provided he is in attendance in some faculty of the University during the following session.

Adam Shortt Scholarship in Political Science

Value \$40. Founded by G. W. Mason, Esq., K.C., in honour of Dr. Adam Shortt, formerly Professor of Economics. Awarded to the student taking the highest standing in Politics 2, provided he is in attendance during the following session and is registered in advanced work in the Department of Political and Economic Science.

W. W. Near Scholarship in Political and Economic Science

Founded by the late W. W. Near, Esq., of Toronto.

Value \$200: awarded by recommendation of the Department on the basis of the first year's work in Honours in the Department (i.e., the first year after admission to Honours) to a candidate for Honours (Major) in Economics or Politics. The holder of the scholarship will be paid \$100 in each of two succeeding years. The second payment may be withheld, on recommendation of the Department, if the holder's progress is not satisfactory.

Gowan Foundation No. I

Value \$20. Founded by the late Sir James R. Gowan, K.C.M.G. Awarded for the best essay written under examination conditions in February of each year, on one of a list of subjects prescribed by the Department of Political and Economic Science.

Gowan Foundation No. III

Value \$20 in books. Founded by the late Sir James R. Gowan, K.C.M.G. Awarded in Honours in Political Science.

Norris A. Brisco Prize in Commerce

Given by Norris A. Brisco of the Class of '98, Dean of the School of Retailing, New York University.

A prize of \$25 awarded annually to the student in Final Year Commerce and Administration who makes the highest standing on the graduation Thesis.

P. D. Ross Scholarship in Commerce

Value \$150. Given by P. D. Ross, LL.D., Ottawa. Awarded on the basis of the third year's work in the Commerce Courses, provided that the candidate is taking at least four full courses or their equivalent in the "Special Subjects" in Commerce and Administration and lacks

not more than five other courses for graduation in Commerce. Tenable during the student's fourth year, if it is taken intramurally.

This scholarship will be given only when funds are available.

MATHEMATICS AND SCIENCE

DEPARTMENTS OF MATHEMATICS AND PHYSICS

N. F. Dupuis Scholarship in Mathematics

Value \$50. This is one of three scholarships founded by the graduates of the University in honour of the late Professor N. F. Dupuis on the completion of his forty-five years' service as Professor in the University. The scholarship is awarded to the student who takes the highest standing in Mathematics 1 in the April examinations.

E. D. Merkley Prize in Mathematics 2

A prize of the value of \$5 in books. Founded in memory of E. D. Merkley, B.A., a graduate of 1926. Awarded each year to the student obtaining the highest standing in Mathematics 2.

Susan Near Scholarships in Mathematics

Founded by the late Susan Near of Toronto.

Two Scholarships of the value of \$60 and \$40: awarded to the students with the highest and the second highest standing in Mathematics 2, 10a, 11b taken concurrently.

Two Scholarships of the value of \$60 and \$40: awarded to the students with the highest and the second highest standing in Mathematics 12a, 14a, 15b, 16b taken concurrently.

William Coombs Baker Memorial Prize

A prize of the value of \$10 in books selected from a list approved by the Department of Physics. This prize has been founded by graduates in memory of William Coombs Baker, formerly the Robert Waddell Professor of Experimental Physics at Queen's University. Awarded annually to the student making the highest standing in Physics 11.

Day Scholarship in Physics and Mathematics

Value \$20. Founded in memory of the late Calvin Wellington Day, M.A., Lieutenant 2nd Battalion, C.E.F. Awarded to students proceeding to the Honours Course in Physics and Mathematics, the award to be based on examinations in Physics 2 and the Mathematics taken in the same year, provided that at least one full course in Mathematics other than Mathematics 1 is being taken.

Susan Near Scholarships in Physics

Founded by the late Susan Near of Toronto.

1. Value \$50: awarded to the student who has the highest standing in Physics 2 and 11 at the end of the session in which course 11 is com-

pleted. It is not necessary that Physics 2 should be taken concurrently with Physics 11.

2. Value \$75: awarded to the student who has the highest standing in Physics 14a and 13b taken concurrently.

3. Value \$75: awarded to the student who has the highest standing in Physics 12a and 10b taken concurrently.

DEPARTMENT OF BIOLOGY

W. W. Near Scholarship in Biology

Founded by the late W. W. Near, Esq., of Toronto.

Value \$200: awarded by recommendation of the Department on the basis of the first year's work in Honours in the Department (i.e., the first year after admission to Honours) to a candidate for Honours (Major) in Biology. The holder of this scholarship will be paid \$100 in each of two succeeding years. The second payment may be withheld, on recommendation of the Department, if the holder's progress is not satisfactory.

Gowan Foundation No. II

Value \$16. Founded by the late Sir James R. Gowan, K.C.M.G., for the best collection of Canadian Ferns and Fern Allies. In session 1940-41 only Fern Allies will be accepted. The plants must be good specimens, well pressed and mounted on herbarium sheets of the standard size. The collection must be delivered before December 15.

Ann Eliza Stafford Scholarship in Biology

Value \$40. This Scholarship is not yet available but will later be provided by T. T. Bower, Esq., of Winnipeg, at which time the conditions of award will be announced.

DEPARTMENT OF CHEMISTRY

William Moffat Scholarship

Value \$20. Founded by Dr. William Moffat of Utica and awarded annually to the student making the highest standing in first year Chemistry.

Dr. William H. Nichols Scholarship in Chemistry

Founded by Dr. William H. Nichols.

A Scholarship of the value of \$40 will be awarded to the student obtaining the highest marks during the year in Chemistry 2.

Susan Near Scholarships in Chemistry

Founded by the late Susan Near of Toronto.

Two Scholarships of the value of \$100 and \$50 to be awarded to the students with the highest standing and the second highest standing in Chemistry 12, 13, 14 taken concurrently, provided that in each case the average on these subjects is at least 75%.

DEPARTMENTS OF GEOLOGY AND MINERALOGY

Manley B. Baker Scholarships in Geology

Founded by Agnes Moreland Baker. Two Scholarships of the value of \$125 and \$75 will be awarded annually to the students in the Faculty of Arts or of Applied Science obtaining highest and second highest standing in the first three courses in Geology. These may include Mineralogy 10a (Arts) or Mineralogy III (Science). If two students are equal preference will be given to the one whose need is greater.

Susan Near Scholarship in Geology-Mineralogy

Founded by the late Susan Near of Toronto.

Value \$100: awarded to the student making the highest standing in Mineralogy 10a, Mineralogy 11, Geology 10b, Geology 11.

GENERAL SCHOLARSHIPS

The American Legion Scholarship

Value \$100. Established by Dr. George Hayunga of New York.

To be awarded annually to the member of the Queen's University Contingent of the Canadian Officers' Training Corps, who obtains the highest marks on the C.O.T.C. examinations provided that he has obtained high standing on his academic Course.

B'nai B'rith Kingston, Bursary

Value \$50. Founded by the B'nai B'rith Lodge of Kingston. This Bursary will be awarded annually to a student of promising ability but straitened circumstances. The award will be made on the basis of the April examinations. Applications will be received up until April 1 of each year.

Robert Bruce Scholarships

Under provisions in the will of the late Robert Bruce of Quebec the University has established a Scholarship worth about \$70 in each of the Faculties of Arts, Applied Science and Medicine. Until 1948 the award is limited to students of Scottish extraction.

The Scholarship in each Faculty will be awarded at the end of the first year to the student who has made the highest standing on the regular examinations of that year. One-third of the value of each Scholarship will be paid to the winner in each of the second, third, and fourth years of his Course provided that he is in attendance in the Faculty in which the award was made.

Robert Bruce Bursaries

The will of the late Robert Bruce of Quebec provided for a sum of about \$100 a year to be given in Bursaries "to students of promising

ability but straitened circumstances." Until 1948 the award is limited to students of Scottish extraction.

This sum will be disbursed annually to one or more students in the third or later years in any Faculty. The Registrar will receive applications up to September 1 in each year.

Khaki University and Y.M.C.A. Memorial Fund

This fund is part of a sum, left from the Khaki University after the Great War, which was divided among the Canadian Universities.

The interest, amounting to \$240, will be used to award one or more scholarships open to undergraduate students in any Faculty. In awarding these scholarships the need as well as the standing of applicants will be considered and preference will be given to returned men, or sons or daughters of soldiers of the Great War. Applications will be received by the Registrar up to April 1st.

University Scholarships

Six scholarships of the value of \$100 and eight of the value of \$75 will be awarded at the close of each session to students completing first, second and third year work who will be in attendance during the following session.

Welch Scholarship

Value \$100. Founded by Frederick Welch of Kingston. Awarded in the Faculty of Arts and open for competition only to the sons and daughters of non-commissioned officers and men who served overseas in the Great War, and of mechanics and labourers, which students shall at the time be bona fide residents of the City of Kingston; preference being given to the children of soldiers. Application for this Scholarship must be made to the Registrar not later than April 1 and must give evidence of eligibility in accordance with the terms of the will. The Scholarship will be awarded on the basis of the April examinations and will be tenable by a student in residence during the session following the award.

Reuben Wells Leonard Penultimate Year Scholarships

One Scholarship of the value of \$300 and one of the value of \$200. Awarded at the end of the penultimate year to the students obtaining highest and second highest standing in the Faculty of Arts. The winning students must be in residence the year following the award.

Reuben Wells Leonard Special Scholarships

For a period of three years, 1940-42, special Reuben Wells Leonard Scholarships for merit and need will be awarded in varying amounts

to students of promising ability but straitened circumstances. The awards will be made on a loan or service basis.

Exchange Plan for Undergraduates of Canadian Universities

The object of the Exchange Plan is to permit specially selected students to take a year of work at a university of another section of the country, provided that such students undertake to return the following year to their own university. Students accepted under the exchange plan will be permitted to take a full year's work at the desired university with exemption from tuition.

Applications for an Exchange Scholarship must be in the hands of the Registrar not later than March 1st.

III—GRADUATE FELLOWSHIPS

A—Arts Research Fellowships

The University will award two Fellowships of the value of \$500 and one or two of smaller value. These will be open to men and women who have taken an Honours B.A. at Queen's or an equivalent degree elsewhere. At the discretion of the Committee on Arts Research one of the \$500 Fellowships may be awarded as a Travelling Fellowship, but with this exception the appointments are given only to those undertaking graduate studies at Queen's.

A student appointed to a Travelling Fellowship must submit and have approved a plan of study, and must present a report on his year's work within twelve months of his appointment.

A student appointed to a Fellowship within Queen's may be required by the Committee in consultation with the Department concerned, to undertake work of any of the following kinds: (a) Independent investigation, (b) Assistance in research work carried on by the Department, (c) Tutorial assistance not to exceed six hours a week.

The holder of a Fellowship may be required to report in lectures or in written form the results of any investigations carried on.

The holder of a Fellowship shall not be permitted to do any tutorial work except such as may be required of him by the Department in which his special studies lie. In no case shall tutorial work exceed six hours a week or entitle the Fellow to additional remuneration.

Applications must be sent to the Registrar, accompanied by evidence of eligibility, not later than April 1 of each year.

The Fellowships will be awarded only to candidates of distinction and promise.

Reuben Wells Leonard Travelling Fellowship, value \$300

This Fellowship is awarded annually to a student intending to do postgraduate work at a University within the British Empire.

B—Fellowships in Chemistry

Milton Hersey Fellowship in Chemistry

This Fellowship, of the annual value of \$400, is endowed by Milton L. Hersey, M.Sc., LL.D., of Montreal. It is open to graduates of all universities and technical colleges.

The holder of this Fellowship shall carry on research work for the whole session and embody the results in a thesis. The research may take the form either of independent investigation or of assistance in an investigation carried on by some department. The Fellow may be required to undertake tutorial work not to exceed six hours a week.

Applications for Fellowships will be received by the Registrar up to May 1. If no appointment is made by that date, further applications will be received up to September 1.

William Neish Fellowship in Chemistry

This Fellowship of an annual value of \$400 has been endowed by Ada E. Neish and Laura Neish Black of Kingston. It is open to graduate students in Chemistry from Queen's or other Universities.

The holder of this Fellowship shall carry on research work at Queen's for the whole session under the direction of some member of the Department of Chemistry and embody the results in a thesis. The Fellow shall be required to give laboratory instruction or its equivalent not to exceed nine hours a week.

C—Fellowships in History

Sir James Aikins Fellowship in Canadian History

This Fellowship of the annual value of \$400, was created through the generosity of Sir James Aikins, K.C., LL.D., of Winnipeg, who gave an amount creating an annual revenue of \$200. This was supplemented by an equal sum contributed by Queen's University. It will be awarded to the student obtaining the highest standing in the Honours courses in Canadian History, namely, History 20a, 21b, 28a, 29b, or such other courses as the Professor of Colonial and Canadian History shall determine.

The Fellowship will be tenable only by students who return to the University for further work in Canadian History and will be subject to the same conditions regarding tutorial work as the Arts Research Fellowships.

Western Ontario Graduates Fellowship in History

This Fellowship of the annual value of \$320 was created through the generous contribution by graduates of the University in western Ontario of an amount creating an annual revenue of \$160, which was supplemented by an equal sum contributed by Queen's University. It was established for the purpose of encouraging research in History and

of providing junior assistants in the Department of History. It is awarded within the discretion of that Department to an advanced student of satisfactory academic standing in attendance at the University, and is subject to the same conditions regarding tutorial work as the Arts Research Fellowships.

D—Fellowship in Philosophy

George MacBeth Milligan Fellowship in Philosophy

This Fellowship, of the annual value of \$400, has been endowed by George MacBeth Milligan of Toronto. It will be awarded to a graduate who is qualified to carry on independent research work in Philosophy or Psychology.

The Fellow appointed shall carry on research work at Queen's University for the whole session and shall embody the results in a thesis. Such research may take the form of assistance in an investigation. Tutorial or other help may be required, under the same conditions as for the Arts Research Fellowship.

The Fellowship may be awarded to a qualified graduate of another university.

E—Reuben Wells Leonard Fellowships

Under the will of the late Reuben Wells Leonard provision was made for the following Fellowships:

Four Fellowships of the value of \$500 will be awarded to graduates of the University "who are willing and qualified to undertake independent research work in the interests of higher culture". These Fellowships are tenable only by students in attendance at Queen's.

Application must be made to the Registrar not later than April 1st.

F—Reuben Wells Leonard Fellowships

For a period of three years, 1940-42, \$1,500 will be available for Fellowships of varying amounts for Queen's graduates continuing their work at Queen's University. Application for these Fellowships must be received by April 1.

G—Student Exchanges

From time to time student exchanges are arranged with France and Germany. Applications from final year and graduate students will be received by the Registrar each year.

IV—FELLOWSHIPS NOT CONTROLLED BY THE UNIVERSITY

A—The Marty Memorial Scholarship

This scholarship in memory of Dr. Aletta Marty, valued at not less than \$750, is offered by the Queen's University Alumnae Association. Any woman graduate of Queen's University with a Master's degree may

hold this scholarship, which will ordinarily be awarded for a year's graduate work overseas. A committee chosen by the Alumnae Association will make the award.

The scholarship may be awarded to the same woman for a second year. The committee is authorized to withhold the award in any year for financial or academic reasons.

Applications should reach the Registrar not later than January 1st each year. Candidates must have the Master's degree when they hold the scholarship but not necessarily when they apply for it. Further information may be obtained from the Registrar's Office.

B—The Rhodes Scholarship

1. *General Regulations*:—A Rhodes Scholarship is tenable at the University of Oxford and may be held for three years. Since, however, the majority of Rhodes Scholars obtain standing which enables them to take a degree in two years, appointments are made for two years in the first instance, and a Rhodes Scholar who may wish to remain for a third year will be expected to present a definite plan of study for that period satisfactory to his College and to the Rhodes Trustees.

Rhodes Scholars may be allowed, if the conditions are approved by their own College and by the Oxford Secretary to the Rhodes Trustees, either to postpone their third year, returning to Oxford for it after a period of work in their own countries, or may spend their third year in post-graduate work at any university of Great Britain, and in special cases at any university on the continent of Europe, the overseas dominions, or in the United States, but not in the country of their origin.

The stipend of a Rhodes Scholar is fixed at £400 per year. At most Colleges, and for most men, this sum is not sufficient to meet a Rhodes Scholar's necessary expenses for Term-time and Vacations, and Scholars who can afford to supplement it by £50 per year from their own resources will find it advantageous to do so.

2. *Conditions of Eligibility*:—A candidate to be eligible must:

1. Be a British subject, with at least five years' domicile in Canada, and unmarried. He must have passed his nineteenth year, but not have passed his twenty-fifth birthday on October 1st of the year *for* which he is elected.

2. Have reached such a stage in his course at one of the Universities in Canada that he will have completed at least two years at the university in question by October 1st of the year *for* which he is elected.

Candidates may apply either for the province in which they have their ordinary private domicile, home or residence, or for any province in which they have received at least two years of their college education before applying.

In that section of the Will in which he defined the general type of scholar he desired, Mr. Rhodes wrote as follows:

"My desire being that the students who shall be elected to the Scholarships shall not be merely bookworms, I direct that in the election of a student to a Scholarship regard shall be had to:

1. his literary and scholastic attainments;
2. his fondness for and success in manly outdoor sports such as cricket, football and the like;
3. his qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness and fellowship, and
4. his exhibitions during school days of moral force of character and of instincts to lead and to take an interest in his schoolmates for those latter attributes will be likely in after life to guide him to esteem the performance of public duty his highest aim."

Full particulars may be obtained from D. R. Michener, 372 Bay St., Toronto, Secretary of the Selection Committee for the Province of Ontario. Two Scholarships may be awarded annually in the provinces of Quebec and Ontario if qualified candidates appear.

Each candidate for a Scholarship is required to make application to the Secretary of the Committee of Selection of the province in which he wishes to compete, not later than November 10th. Application forms may be obtained from the Registrar's Office.

The following graduates of Queen's University have been awarded Rhodes Scholarships:

- J. M. Macdonnell, M.A., 1905.
- A. G. Cameron, B.A., 1906.
- Norman S. Macdonnell, M.A., 1907.
- Stanley Scott, B.A., 1911.
- H. S. Smith, M.A., 1912.
- A. G. Cumming, M.A., 1914.
- H. R. MacCallum, B.A., 1919.
- K. E. Taylor, B.A., 1920.
- A. D. Winspear, B.A., 1922.
- L. F. Kindle, B.A., 1925.
- D. A. Skelton, B.A., 1926.
- John Gordon Davoud, B.A., 1936.
- George Malcolm Brown, M.D., C.M., 1937.
- George Parkin Grant, B.A., 1938.

This Scholarship is not controlled by the University.

C—Royal Society of Canada Fellowships

Ten annual fellowships to be known as the Royal Society of Canada Fellowships, each of \$1500, and open on equal terms to men and women, have been endowed through the generosity of the Carnegie Corporation. They are tenable at institutions of learning or research, save in exceptional circumstances outside of Canada, and are available for ad-

vanced research in Literature, History, Anthropology, Sociology, Political Economy, or allied subjects, in French or English; and in Mathematics, Chemistry, Physics, Geology, Biology, or subjects associated with any of these sciences.

An applicant for a Fellowship should be a graduate of a Canadian university or college, or should have received an equivalent training in a Canadian institution possessing adequate facilities in his particular subject, and, except in special cases, should have the Master's degree or its equivalent or, preferably, have completed one or more year's work beyond that degree.

Applications, addressed to "The Secretary, Royal Society of Canada Fellowships Board, Ottawa, Canada," should contain particulars of the candidate's age and place of birth, a full statement of his academic career, with copies of original papers and any other evidence of his ability or originality in his chosen field; also an indication of the particular work he proposes to undertake, at what institution, and under whose direction; and should be supported by recommendations from the head of the department of the institution in which the candidate has studied, and from the instructors under whom he has chiefly worked. All these papers should be in duplicate.

The following graduates of Queen's have held these Fellowships:

Miss Christine Rice, M.A., Ph.D., 1932-33.

Harold Williams Fairbairn, B.Sc., 1932-33.

George Alan Harcourt, M.Sc., 1933-34.

William Carruthers Güssow, M.Sc., 1936-37.

Archibald William Currie, B.A., B.Com., 1937-38.

John Stewart Marshall, M.A., 1938-39.

This Fellowship is not controlled by the University.

D—Exhibition of 1851 Science Research Scholarship

This postgraduate scholarship of the annual value of £250 was founded by Her Majesty's Commissioners for the Exhibition of 1851, and is awarded to students who have given evidence of capacity for original research, and, except in very special circumstances, are under 26 years of age.

A given number of Scholarships are awarded annually to students in Canada recommended by the Universities approved by the Commission.

The nominee must be a British subject, must have been a *bona fide* student of Science for three years, must have been a student of this University for a full year immediately before his nomination, must be a student of this University at the time of his nomination (or he must have been a student at this University for a full year ending within twelve months prior to his nomination and since ceasing to be such student must have been engaged solely in scientific study), and must

pledge himself not to hold, without special permission from the Commissioners, any position of emolument while holding the scholarship. He is recommended to the Commissioners by the Senate of the University. The scholarship may be held for two years, if the report of the first year's work be satisfactory to the Commissioners, and in exceptional cases for a third year. In the absence of special circumstances, the scholar will not be permitted to conduct his investigations in the country in which he received his scientific education. The particular investigation the student proposes to pursue must be stated before a scholarship can be awarded.

The scholarship is payable quarterly in advance and a grant of £25 will be paid if a satisfactory final report is presented within three months of the expiration of the scholarship. If in the opinion of the Commissioners it is necessary a scholar will receive an additional annual allowance not exceeding £30, and in some cases the fare from his University will be partially paid.

Recommendations must be received at the office of the Commissioners on or before June 1.

The following Science Research scholars have been appointed from Queen's University:

- Norman R. Carmichael, M.A., 1894.
- Thomas L. Walker, M.A., 1896.
- Frederick J. Pope, M.A., 1898.
- W. C. Baker, M.A., 1900.
- C. W. Dickson, M.A., 1901.
- C. W. Knight, B.Sc., 1904.
- F. H. McDougall, M.A., B.Sc., 1905.
- Campbell Laidlaw, B.A., M.D., 1907.
- N. L. Bowen, M.A., B.Sc., 1909.
- Walter A. Bell, B.Sc., 1911.
- John R. Tuttle, M.A., 1913.
- Robert C. Cantelo, B.Sc., 1915.
- Douglas G. H. Wright, B.Sc., 1921.
- R. H. F. Manske, M.Sc., 1924.
- Donald C. Rose, M.Sc., 1924.
- H. M. Cave, M.A., 1926.
- B. W. Sargent, M.A., 1928.
- E. H. Charlesworth, M.A., 1931.
- G. S. Farnham, M.Sc., 1932.
- W. J. Henderson, M.A., 1932.
- William Ernest Bennett, M.A., 1934.
- John Stewart Marshall, M.A., 1935.
- Arthur Gowsell Ward, M.A., 1937.

This Scholarship will not be awarded again until after the war.

E—Scholarship of the Canadian Federation of University Women

The scholarship of the Canadian Federation of University Women, value \$1,250, available for study or research work, is open to any woman holding a degree from a Canadian University. In general, preference will be given to those candidates who have completed at least one or two years of graduate study and have a definite research in preparation. The award is based on evidence of character and ability of the candidate and promise of success in the subject to which she is devoting herself.

This Scholarship is not controlled by the University.

For all information address the Convener of the Scholarship Committee, Dr. Muriel Roscoe, Acadia University, Wolfville, Nova Scotia. Applications must be received not later than February 1st.

The following graduates of Queen's University have been awarded the Federation Scholarship:

Miss Mary White, M.A. (Oxon), 1930.

Miss Marie Hearne, M.A. (Queen's), Ph.D. (McGill), 1935.

Miss Jeanne Le Caine, M.A. (Harvard), 1940.

F—Daughters of the Empire Post-graduate Scholarship (Overseas)

As part of their War Memorial the Imperial Order, Daughters of the Empire offers in each Province in Canada a scholarship for postgraduate study in Britain. The scholarship, of the value of \$1,400, is tenable for one year, but it may be awarded to the same person for a second year.

These scholarships are subject to the following conditions:

(1) Candidates may be men or women. They must be British subjects, with at least five years' residence in Canada, and unmarried. They must have passed their 19th but not their 27th birthday in October of the year in which they begin work in Britain. Each candidate must hold a degree from a recognized University or degree-granting College in Canada, and must have done, or be doing, post-graduate work.

(2) In each Province a Committee of Selection will award the scholarship. Other things being equal, preference will be given to a returned man's sister, brother, son or daughter. The Committee will consider not only the academic record of the candidate, but his or her character, physical fitness, and promise.

(3) Applications for this scholarship should be sent, before October 15, 1940, to the Provincial I.O.D.E. Educational Secretary, Y.W.C.A. Building, Main Street, Hamilton, Ontario, who will provide additional information about the scholarships.

The following graduates of Queen's University have been awarded Daughters of the Empire Overseas Scholarships:

Watson Kirkconnell, M.A., for the year 1921-1922.

Hartley Munro Thomas, B.A., for the year 1923-1924.

Henry Stanley Ferns, M.A., for the year 1936-1937.

Thomas John Allen, M.A., for the years 1938-1939 and 1939-1940.

This Scholarship is not controlled by the University.

V—PRIZES

In submitting literary articles or essays, candidates for prizes must observe the following regulations:

1. Competitive papers must be given to the Registrar not later than April 1.

2. Each paper must bear a motto instead of the author's name, and must have attached to it a sealed envelope, bearing the same motto and containing a signed declaration that it is his unaided composition.

3. Prizes will be awarded only to those compositions which the examiners consider to be of sufficient merit.

4. All successful compositions shall be the property of the University, and shall be at the disposal of the Senate.

Prince of Wales Prize

A prize of the value of \$32 in books. Founded in 1860 by H.R.H. the Prince of Wales. Awarded each year to the graduating student in the Faculty of Arts who makes the highest standing.

The M. C. Cameron Prize in Gaelic

Value \$40. Founded by the late M. C. Cameron, M.P., Goderich. Awarded to the best Gaelic scholar, reader or speaker, provided that he does not take less than 50% of the total number of marks in the competitive examination. Application for examination should be submitted to the Registrar before January 15 in each year. Work prescribed: any 600 lines of Ossian's *Fingal*, or an equivalent amount of any other Gaelic literature selected by the candidate; Blackie's *Language and Literature of the Scottish Highlands*, Gaelic Grammar, translation at sight of Gaelic into English and English into Gaelic.

SUMMER SCHOOL PRIZES

Curtis Memorial Foundation

Value about \$56. Founded in memory of the late J. T. Curtis of Ottawa. Awarded in October to a graduate of that year (April or September), who has completed the degree Course by extramural and Summer School work. The award is made by a special committee on

the basis of scholastic ability, interest in athletics, and service to the Summer School.

The W. T. MacClement Prizes

Founded by Queen's Summer School Association.

Four prizes of the value of \$16 each. The Queen's University Summer School Association has established in memory of Dr. W. T. MacClement, the first Director of the Summer School, four prizes to be awarded on the results of the September examinations in English 2, Philosophy 1, History 3 and Biology 1 to the Summer School students who stand first in these courses.

VI—MEDALS

A medal is awarded annually by the University to the candidate in each major subject who has made the highest standing on the whole of his Honours work in that subject, provided such standing is Class I.

Special Medal

The French Government offers annually a medal for the best essay in French on any subject connected with France. This essay, the subject of which must be approved by the Department, must be handed in by the 1st of April. Open only to Honours students in French.

GENERAL REGULATIONS

All enquiries regarding regulations should be addressed to the Registrar.

Changes in regulations become effective immediately.

SPECIAL STUDENTS

1. Special students are those who do not intend to proceed to a degree. Such students may be admitted on satisfying the Faculty as to their ability to profit by the courses to which they seek admission.

2. Special students under twenty-one at the opening of the session are subject to all the regulations affecting regular students and to the following special regulations:—

(i) They shall not be granted admission for more than one session, though they may be readmitted to a succeeding session on a new application.

(ii) They shall not be allowed any supplemental examination but must withdraw from the University immediately if they fail to satisfy the Faculty at the regular Mid-year or April examinations.

(iii) Examinations passed by special students shall carry no credit towards Matriculation or towards a degree.

(iv) Attendance as a special student will not count as part of the attendance required for a degree.

3. Special students over twenty-one years of age at the opening of the session may by action of the Faculty be exempted from all regulations respecting attendance and work.

REGULATIONS REGARDING COURSES

Attendance and Exercises

4. Students are expected to hand in all essays and class exercises when due, and to be present at all lectures and laboratory periods.

If students fail to attend seven-eighths of the lectures and laboratory periods of any course or if they fail to hand in such essays and exercises as are definitely required by the department,

(a) the department may reduce their final standing in the course by as much as 50 per cent.,

or,

(b) on the recommendation of the department, the Board of Studies may withhold all credit for their examination until they have registered

as extramural students in the following summer and have satisfactorily completed the work assigned by the department (the fee for such summer work is \$10),

or,

(c) on the recommendation of the department, the Board of Studies may require them at any time during the session to relinquish the course for the current academic year.

A record of absences based on monthly reports from Instructors is kept at the Dean's Office.

5. The December and April marks will be determined not merely by the results of examinations but also by the work of the whole term or session, including consideration of class tests, examinations, attendance, and progress.

6. The faculty may, at any time, either during the term or after the close of the term, require any student to withdraw from the University, whose conduct, attendance, work, or progress is deemed unsatisfactory.

Penalty for Failures and Low Grades

7. Students who fail in any course they intend to count towards a degree must repeat the course before coming up for examination in that course in any subsequent year. Normally the course should be repeated in the year following failure.

8. Students failing in five classes will be required to withdraw for at least one academic year. Students having other serious failures will be considered by the Board of Studies who will recommend action to the Faculty of Arts.

9. Students passing in April in fewer than three classes will not be given the privilege of supplementals. Students passing in three or more classes may write supplemental examinations, if such are offered except in courses in which the marks for laboratory work and class exercises are so low that a passing grade on a supplemental is precluded. The final standing on the year's work will be determined in September. At that time a student who has not credit for four of the five classes of the year will be considered to have failed the year.

10. Students who twice in Course fail a year's work will be required to withdraw from the Faculty.

11. Students whose standing for the first term is regarded as unsatisfactory may be required to withdraw for the rest of the year.

11a. Students readmitted after having been required to withdraw, and students who have previously lost a year by failing four out of five courses, will be placed on probation until Christmas. At that time they may be required to withdraw if they do not pass as many as three out of the five mid-year examinations. Each case will be reviewed carefully by the Committee on Failures and the instructors concerned.

Number of Courses in a Year

12. No student is allowed to take more than five lecture courses in the academic year except as provided below.

12a. Students will be permitted to take by extramural or extramural and Summer School work one back class during the summer following a winter session in which they have passed in five classes. This regulation is not open to a student who has failed a year. (See also section 8 (iii) under Admission to the Faculty of Arts).

13. Intramural students, unless excused for some special reason, must take five courses in each of the first and second years. In no case will such students be allowed to take fewer than three courses in the first or second year. In exceptional circumstances, they may, however, with the consent of the Board of Studies, take three or four courses in the winter session and the rest in the summer, provided that they attend the Summer School.

14. Students, who without special permission drop a course, will be regarded as having failed in that course.

Preparatory Courses

15. Students with full Matriculation who desire to begin work in Greek, German or Spanish may count course A in one or more of these subjects towards a Pass degree. They may count course A in one only of these subjects as a free option towards an Honours degree. A student wishing to take Honours in one of the above subjects may take course 1 during the summer after taking course A during the winter but in such cases course A will not count towards a degree.

16. Courses A and 1 may not be substituted for courses 1 and 2 where the latter are definitely prescribed.

REGULATIONS REGARDING EXAMINATIONS

(See also Regulations 5 to 11)

Mid-Term Examinations

17. Hour examinations in regular class hours may be held by any instructor whenever he thinks advisable.

Mid-Year Examinations

18. Mid-winter examinations in all whole courses are held during the last week before the Christmas holidays. In these courses credit not exceeding fifty per cent. of the final marks may be assigned to the work of the first term. The attention of students is called to Regulations 5 and 8. Final examinations in half-courses of the first term are held in January (see page 6).

April Examinations

19. Final examinations are held in April. Intramural students must take these examinations in all the whole courses and half-courses in which they are registered in the second term. Permission to postpone until September examinations in courses numbered under 10 may be obtained in special cases but only upon the recommendation of the Professors concerned. Honours examinations may not be postponed. Examinations will be held in the Reading courses of all subjects.

The attention of students is specially called to Regulations 5, 8, and 10.

September Examinations

20. Supplemental examinations are held in September in all Pass courses and in the first course in Honours but no supplemental examinations will be given in courses beyond the first three courses of a Major or Minor subject for the Honours B.A. degree. September papers will be set in Reading courses 1 and 2 for those who do this reading during the summer and in all subjects offered at the Summer School.

21. At the specified date (see pages 5 and 6) before the September examinations begin, all candidates must apply to the Registrar for permission to write on the subjects in which they desire to be examined. The application must be on printed forms supplied for the purpose and must be accompanied by the proper fees. See FEES.

Special Examinations

22. Students who for any reason fail to take an examination on the appointed date may be required to take a special examination. The fee is five dollars for one special examination; ten dollars for two or more special examinations.

Admission to Examinations

(See also Regulations 4, 19, 20)

23. Students will not be permitted to take examinations unless they have registered on the prescribed date within the academic year in which they present themselves. (See REGISTRATION.) But graduates not in attendance, who wish to take examinations merely to raise their standing in subjects already passed, may delay their registration until February 15.

24. No candidate will be admitted to the examination hall later than thirty minutes after the beginning of the examination.

25. No candidate will be permitted to take any books or papers into the examination hall except by express direction of the examiner.

Determination of Standing

26. In determining a student's standing at a sessional examination the Departments will take into account the entire class record. See Regulation 4.

27. Students will be given credit for the full work of the year if they have passed each of five classes with at least 50%.

28. The following percentages are required for the various grades of Pass and Honours standing in all courses:

PASS STANDING

(Applying only to courses numbered under 10)

Grade A	75 per cent. and over.
Grade B	62-74 per cent.
Grade C	50-61 per cent.

HONOURS STANDING

(Applying to all courses numbered 10 or over)

Grade A	75 per cent. and over.
Grade B	66 to 74 per cent.
Grade C	55 to 65 per cent.

A student who makes 50% to 54% on any course numbered 10 or over will be permitted to count this course towards the Pass degree. No credit will be given towards an Honours degree.

COURSES OF STUDY LEADING TO THE DEGREE OF B.A.

GENERAL EXPLANATIONS

Pass and Honours Courses

The word "Course," when printed with an initial capital, is used to indicate a programme of work leading to a degree or certificate.

A candidate for the degree of Bachelor of Arts may take a Pass Course or an Honours Course. The latter requires greater specialization and higher standards in the work of the two main subjects. Details are given below under REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS.

Courses and Half-Courses

The word "course," printed with an initial small letter, indicates a unit of work occupying, as a rule, three hours a week throughout the session. A "half-course," on the other hand, usually occupies only one term, though occasionally it may run through the session.

Two half-courses are equivalent to a whole course, and when the amount of work to be done is defined in courses, it is to be understood that an equivalent in courses and half-courses may be offered.

Numbering of Courses and Half-Courses

Preparatory courses in the languages are designated by the letter A. See GENERAL REGULATIONS. Other courses are numbered with Arabic numerals (Latin 1, Greek 2). Half-courses have in addition to the numeral the letter *a* or *b*, according as they are offered in the first or second term. A half-course running throughout the session is marked *hf*. (Chemistry 133hf.) Courses in advanced work marked "t" are two-hour courses extending throughout the year.

The fundamental courses in each subject are numbered 1 and 2 (History 1 or 3) and must be taken by all proceeding to advanced work in the subject. Other courses numbered under 10 are for Pass students only. Courses numbered 10 and upward are Honours courses, though in most departments some of them are open to Pass students also.

SYNOPSIS OF COURSES

The following Courses of Undergraduate Study are offered in the Faculty of Arts:

Pass Courses leading to the degree of B.A.

Honours Courses leading to the degree of B.A. with Honours and Specialist standing.

- Courses in Commerce and Administration.
- Combined Course in Arts and Applied Science.
- Combined Course in Commerce and Applied Science.
- Combined Course in Arts and Theology.

Candidates are subject to changes in Regulations or Courses made after their first registration unless in the judgment of the Board of Studies undue hardship is involved.

All enquiries regarding Regulations should be addressed to the Registrar.

REQUIREMENT FOR A PASS B.A. DEGREE

A candidate for a Pass degree must pass twenty classes, chosen in accordance with the three regulations given below, and must make a standing of Grade B or over in at least ten. In courses numbered 10 or over Grade C will count as the equivalent of Grade B.

A. The twenty classes offered for a degree must include the following eight:

- English 1, English 2,
- Latin 1, or Mathematics 1,
- Any two chosen from Greek 1, German 1, French 1, Latin 1,
Latin 2, Greek 2, German 2, French 2,
- Philosophy 1,
- Any one chosen from History 1, History 3, History 5, Economics 4, Politics 2,
- Any one chosen from Physics 1, Chemistry 1, Biology 1, Geology 1, Mineralogy 1.

B. Candidates must so arrange their work as to include at least three classes in each of three subjects.

C. Additional classes to make a total of twenty may be freely chosen, subject to the regulations regarding prerequisites, from those listed under the heading "Details of Courses of Instruction."

Spanish and Italian may not both be counted towards a degree, but students taking Honours in Spanish may substitute Italian for one of their lecture courses in Spanish.

Italian, Spanish, and Biblical Language and Literature may be counted towards a degree as optional subjects, but of these four only Spanish may be taken as an Honours subject.

As many as three courses in Commerce, numbered 50 or over, may be counted towards the degree of Pass B.A.

Note: Students on the Pass Course interested in preparing to teach Geography under the new System of Studies in the Schools are advised to include in the degree programme

- Physics 1, Chemistry 1, Biology 1, 10, 31, Economics 4, 10,
- History 3, 13, Geology 1, 16a, Mineralogy 16b.

HONOURS COURSES LEADING TO THE DEGREE OF BACHELOR OF ARTS

I. Admission to Honours

(a) At the end of the second year from Pass Matriculation or first year from Honour Matriculation candidates for Honours must make formal application to the Registrar for admission. These applications will be referred first to the departments concerned for recommendation and then to the Committee of Departments for final action.

Candidates will be given admission to an Honours Course if in their special subjects they have made at least 62% in the preceding pass class and at least 60% in the preceding class numbered 10 or over, and if their standing in other subjects is considered satisfactory.

(b) At the end of each year each candidate's record will be reviewed by the Committee of Departments to determine his fitness to proceed in Honours. All not doing satisfactory work will be required to revert to a Pass Course.

II. General Plan of Honours Courses

A. WEIGHT OF WORK

The programme of work for an Honours Degree consists of twenty lecture courses and three Reading courses.

Of the twenty-three courses required,

(a) Twelve constitute a Major composed as follows:

(1) Nine lecture courses of which seven shall be in one subject and the remaining two, at the discretion of the Major Department, shall be in the same subject or shall be supporting work in other subjects. For the purpose of this regulation, Italian 1 shall be regarded as a course in Spanish and Geology and Mineralogy shall be regarded as a single Department.

If Pass courses from another Department are prescribed as part of the Major group, the candidate must make Grade B in them; if advanced courses from another Department are approved, the candidate must make Grade C in them but will be exempt from the regulations regarding standing in earlier work in the subject.

(2) Three Reading courses. Each of these in weight of work shall be the equivalent of a three-hour lecture course and the content will be determined by the Major Department. At the discretion of the Major Department a thesis may be substituted for an examination in one of the Reading Courses. Field work or research, approved by the Major Department, may be substituted for one of the Reading courses but no candidate shall be required to make such substitution.

- (b) The Minor shall ordinarily consist of five courses in one subject but the Minor department may substitute for one of these a related or prerequisite course from another department. For purposes of this regulation Geology and Mineralogy shall be regarded as a single subject.
- (c) Six are compulsory general courses. Each Honours student must take English 1, 2, French 1 or German 1 or Greek 1, Latin 1 or Mathematics 1, Philosophy 1, a Science. If some of these classes are included in the special subjects an equal number of other classes outside the special subjects must be substituted.

The detailed prescription of work for each subject of instruction shows in the introductory matter the general courses required when that subject is taken as a Major.

B. COMPULSORY COURSES

- (a) The following classes must be included among Major, Minor, and General courses:

English 1, 2.

Latin 1 or Mathematics 1.

Latin 1 must be taken by candidates whose Major or Minor is in English or a foreign language. Mathematics 1 must be taken by candidates whose Major or Minor is in a science.

French 1 or German 1 or Greek 1.

Philosophy 1.

A science course.

- (b) Other compulsory courses may be required, but in that case they must be counted as part of the Major or Minor.

*III. General Honours Course

The General Honours Course shall consist of twenty-four classes made up as follows:

Five lecture courses in each of three special subjects.

One Reading course in each of three special subjects.

Six compulsory general courses:

Each student must take English 1, 2, French 1 or German 1 or Greek 1, Latin 1 or Mathematics 1, Philosophy 1, a Science. If some of these classes are included in the special subjects an equal number of other classes outside the special subjects must be substituted. Students taking a preparatory course in Greek, German or Spanish have the benefit of Regulation 15, page 77. In a combination including Physics but not Mathematics it will be necessary for the student to take Mathematics 2, as part of the Physics group, or as one of the compulsory subjects.

The candidate will be required to take in addition to course examinations one general examination in each special subject.

The regulations applying to specialized Honours Courses shall apply to the General Honours Course. The minimum time required of exceptional students to finish a degree in the short period, from admission to Honours, will be two regular winters, the intervening summer, and the following summer.

N.B. *For purposes of this Course, Economics and Politics may be regarded as separate Departments.*

IV. Special Honours Courses

A. Honours in Latin and French with Greek.

The following courses are required:

- (a) Latin 1, 2, 10 or 11, 15, 21 or Greek and Roman History 51, Classics Reading Course 4.
- (b) Greek 1, 2, 10 or 11, 21, 26 or Greek and Roman History 52, Classics Reading Course 3.
- (c) French 1, 2, 10, 11, 12, French Reading Course 1.
- (d) Six general courses: English 1, 2, Philosophy 1, a science, two free options (Greek and Roman History 4 is recommended).
One general examination in each special subject.

B. Honours in General Science for Teachers:

The following courses are required:

- (a) Biology 1, 10, 15, 11, 16, Reading Course 1.
- (b) Chemistry 1, 2, 12, 13, 14, Reading Course 1.
- (c) Physics 1, 2, 11, 12a, 10b, 14a, 13b, Reading Course 1.
- (d) Six general courses: English 1, 2, French 1 or German 1 or Greek 1, Philosophy 1, Mathematics 1, one free option.
One general examination in each special subject.

**Note: The following arrangement will be made for students on the General Honours Course who wish to prepare for the teaching of Geography under the new System of Studies in the Schools:*

A. 1. Biology 1, 10, 15, 19, 31, Reading Course 1.

Chemistry 1, 2, 12, 13, 14, Reading Course 1.

Economics 4, 10, Geology 1, 16a, History 13, Mineralogy 16b, History Reading Course 5.

Six compulsory general courses: English 1 and 2, a language, Latin 1 or Mathematics 1, Philosophy 1, Physics 1.

B. 2. Economics 4, Politics 2, Economics 10, 12, 15, Reading Course 1.

History 1, 3, 13, 17, one Honours course to be selected from other offerings in History, Reading Course 5.

Biology 1, 10, 31, Geology 1, 16a, Mineralogy 16b, a Reading Course in Biology.

Six compulsory general courses, as outlined in 1 except that Chemistry 1 will be offered in place of Physics 1.

V. Length of Course

The Course for the degree of B.A. with Honours normally covers five years from Pass Matriculation or four years from Honour Matriculation in five full subjects. Ordinarily candidates are not permitted to register in any academic year in more than five courses including Reading courses. It is possible, however, for candidates of exceptional ability to complete the Course in four years from Pass Matriculation or three years from Honour Matriculation by taking five regular lecture courses or the equivalent in hours in each of three years, and by doing the Reading courses in the penultimate and final years and in the intervening summer. Such candidates must have passed with Grade A standing in each special subject and an average of Grade A on the year's work preceding admission to Honours.

A candidate is expected to complete his general courses by the end of the third year.

VI. Final Year Examinations

Candidates for the degree of B.A. with Honours must take two general examinations in the Major subject at the conclusion of the Course. In addition they will write the regular sessional examinations in all the courses of the year.

VII. Classes in Honours

An Honours degree will be granted to candidates who pass all their courses and make honours standing in the advanced work as a whole in each of the major and minor subjects.

First class honours require a minimum of 75 per cent.

Second class honours require a minimum of 66 per cent.

Third class honours require a minimum of 60 per cent.

VIII. Pass Degree on an Honours Course

Candidates who pass all their classes but fail to secure honours because they have made less than 60 per cent. in one or both of the major and minor will be given a pass degree if they have made at least 50 per cent. in each of these subjects.

First Year

Pass Matriculants must take in the first year five courses chosen from the following: Latin 1, Greek 1, German 1, French 1, English 1, History 1 or 3, Mathematics 1, Physics 1, Chemistry 1, Biology 1, Geology 1.

Social Work

Students who wish to proceed to Social work after graduation will find that any Arts degree will admit them to a recognized School of Social Work. Such students should include in their degree Course as many as possible of the following subjects: Economics, Sociology, History, Philosophy, Psychology, Biology and English.

COURSES FOR TEACHERS' CERTIFICATES IN THE PROVINCE OF ONTARIO

I. Permanent First Class Certificate

Students holding the Interim First Class Certificate may satisfy the academic requirements for the Permanent Certificate by taking five University courses. This work must include English 2, the other four courses to be chosen subject to the approval of the Department of Education. Some of the classes which may be completed by extramural work are: English 2, Latin 2, History 3, Philosophy 1, Philosophy 2, Economics 4, Politics 2, Mathematics 2. Classes in Science and Modern Languages must be taken in residence either during a regular winter session or by extramural and summer school work.

II. High School Teachers' Certificates

Under the regulations of the Ontario Department of Education a candidate for a High School Teachers' Certificate who holds a First or Second Class certificate and who has had experience in the Public, Separate or Continuation Schools of the Province may be partially relieved from attendance at the Ontario College of Education.

III. High School Assistants' Certificates

The academic standing for admission to the professional Course leading to an ordinary High School Assistant's certificate is the degree of Bachelor or Master of Arts, Bachelor or Master of Science, or Bachelor of Commerce, from a British University, based upon Courses approved by the Minister of Education.

IV. Specialists' Certificates

Subject to the conditions specified below, the academic standing required of Specialists may be obtained by completing a Course in Arts with Honours in one of the following groups:

Classics	French and German or Spanish
Latin and Greek	History with Minor in Economics
Latin and French	Mathematics
English with Minor in History	Mathematics and Physics
(Social)	Science
English and French	B.Com. Course (Specialist's Option)

Candidates for Specialists' Certificates in English or in History must include in the general courses the classes mentioned in the Departmental Prescriptions. Candidates for Specialists' Certificates in English and French must take a class in History as one of the general courses.

Candidates for Specialists' certificates in Science, should take the regular Honours Course in two of Physics, Chemistry, and Biology.

Graduates of the Faculty of Applied Science may obtain the standing required for Specialists by taking certain additional courses as stated below.

V. Specialists' Certificates for Graduates in Applied Science

1. IN MATHEMATICS AND PHYSICS

A degree in Applied Science in one of the Courses of Mining and Metallurgical Engineering, Chemistry, Mineralogy and Geology, Chemical and Metallurgical Engineering, Civil Engineering, Mechanical Engineering, or Electrical Engineering with a subsequent standing of at least 55 per cent. in each of the following courses and an average of 66 per cent. in the work of each subject:

Mathematics 10a, 11b, 12a, 15b, 16b, 18t,

Physics 10b, 12a, 13b, 14a,

credit towards these being given when equivalent subjects have been satisfactorily taken in Course.

A degree in Applied Science in the Department of Physics with subsequent standing of at least 55 per cent. in each of the following courses and an average of 66 per cent. in the work of each subject:

Mathematics 10a, 11b, 12a, 15b, 16b, 18t, and another advanced full course,

Physics 10b, 12a, 13b, 14a,

credit towards these being given when equivalent subjects have been satisfactorily taken in Course.

2. FOR SPECIALIST STANDING IN SCIENCE

A degree in Applied Science in one of the Departments of Mining and Metallurgical Engineering, Chemistry, Mineralogy, Geology, Chemical and Metallurgical Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, or Physics, with a subsequent standing of at least 55 per cent. in each of the following courses, and an average of 66 per cent. in the work of each subject in courses numbered 10 or over:

Biology 1, 10, 15, 11 or 16,

Physics 11, or 14a and 13b,

Geology 1,

Mineralogy 1,

Chemistry 2, and one of 12, 13, 14, 17 not previously taken, credit towards these being given when equivalent subjects have been satisfactorily taken in Course.

VI. Inspectors' Certificates

The academic requirements for a Public School Inspector's certificate are as follows:

(1) An Honours degree in Arts or the degree of B.Com. (Commercial Specialists' Option) in accordance with the present agreement as prescribed for Specialist qualifications, or

(2) A Pass degree in Arts with a standard of 66% in any five courses beyond course 1, and Grade B in any other five courses.

(3) Candidates shall extend their Course over at least four years from Junior Matriculation and they shall attend the University classes (i) for at least two complete sessions approved by the University, or (ii) for at least one complete session, and two complete sessions of the Summer School, or (iii) for at least four complete sessions of the Summer School, or the equivalent thereof, with the supervision prescribed by the scheme agreed upon between the Department and the University.

COURSES IN COMMERCE AND ADMINISTRATION

These Courses, leading to the degree of Bachelor of Commerce, were established in 1919 to assist in meeting the need which exists in Canada of more systematic training for business and public service.

General Business Course

<i>First Year</i>	<i>Second Year</i>
English 1	English 2
French 1	French 2
<i>or</i> German A <i>or</i> 1	<i>or</i> German 1 <i>or</i> 2
Mathematics 1	<i>or</i> Spanish 1 <i>or</i> 2
Science (one course)	<i>or</i> Mathematics 2
One other general course which	Economics 4
must be a language <i>or</i> a	Politics 2
science	<i>or</i> History 1 <i>or</i> 3
	Commerce 63
<i>Third Year</i>	<i>Fourth Year</i>
One additional course in French	Economics 11a
<i>or</i> in German	Commerce 52
<i>or</i> in Spanish	Commerce 54
<i>or</i> in Mathematics	Commerce 59 (Thesis)
Commerce 60	*One full course <i>or</i> two half-
†Commerce 64	courses in Economics, Com-
†Economics 10	merce.
Economics 12	

*Options selected must be approved by the Director.

*Mathematics 7b may be offered as an optional half-course.

†Students who have already taken Economics 1 and Economics 23 will not be required to take these courses.

The Courses in Banking established in 1914 by Queen's University in co-operation with the Canadian Bankers' Association will hereafter be continued as part of the Courses in Commerce and Administration.

For further particulars consult ANNOUNCEMENT OF THE COURSES IN COMMERCE AND ADMINISTRATION, copies of which may be obtained from the Registrar.

COMBINED COURSE IN ARTS AND APPLIED SCIENCE

A Course leading to the Degrees of B.A. and B.Sc. in seven years

Students taking this Course are required to have Arts Matriculation. They will pay full Arts fees for the first three years. In the fourth and fifth years they will register in both Arts and Applied Science but will pay fees in Applied Science only. They will register in the sixth and seventh years in the Faculty of Applied Science and will pay fees in the Faculty of Applied Science.

The Arts regulation in regard to back classes will apply for the first four years, (see regulation 12a, page 77 of the Arts calendar). Students with back classes in Arts will not be permitted to make up these classes while they are registered in the Faculty of Applied Science.

The courses must be taken in the order in which they are outlined in the calendar.

The degree of Bachelor of Arts will be conferred on candidates who complete five years' work as outlined below, with a minimum standing of fifty per cent. and sixty-two per cent. in half the classes.

First Year—English 1

French 1 or *German 1 or *Greek 1 or Latin 1
Mathematics 1
Physics 1
Chemistry 1

*Students who have not matriculated in German or Greek will have to take German A or Greek A before registering in German 1 or Greek 1. In such cases the A course will count as a free option.

Second Year—English 2

One language not already covered, to be selected from
French 1, 2, German 1, 2, Greek 1, 2, Latin 1, 2
A course in History or Economics or Politics
Mathematics I (Applied Science)
Physics II (Applied Science)

Third Year—Three courses in Arts to be selected from courses which will not be covered later in Applied Science

Chemistry I (Applied Science)
Mathematics III (Applied Science)
Mathematics IV (Applied Science)

Fourth Year—Three courses in Arts to be selected from courses which will not be covered later in Applied Science

Mathematics II (Applied Science)
Physics I (Applied Science)

Drawing (Applied Science)
 Surveying (Applied Science)
 Projection (Applied Science)

Fifth Year—The regular second year Science programme. The work of this year includes courses in Mathematics, Physics and Chemistry which will be counted towards a degree in Arts.

Sixth and Seventh Years

The sixth and seventh years are the same as the third and fourth years of the Course leading to the degree of Bachelor of Science, as outlined in the calendar of the Faculty of Applied Science.

COMBINED COURSE IN ARTS AND THEOLOGY

A Course Leading to the Degree of B.A. and the Testamur in Theology in Six Years

Queen's University and Queen's Theological College join in offering a Combined Course in Arts and Theology. The complete Course covers six years. The first, second and third years are entirely within the Faculty of Arts. Candidates must be fully qualified for admission to the Faculty of Arts. The fourth year consists of one Arts class, for which a fee of \$25 is charged, and of the first year in Theology. The fifth and sixth years of the Combined Course are the second and third years in Theology.

The degree of Bachelor of Arts is awarded at the end of the fourth year to candidates who have passed in all their subjects and made Grade B in at least ten of the classes offered for the B.A. degree. The testamur in Theology is granted after the successful completion of the sixth year. Additional courses in Theology equivalent to at least one year's further study are required to qualify for the degree of Bachelor of Divinity. The subjects covered are given below:

First Year

1. English 1
2. Greek A
3. Latin 1 or Mathematics 1
4. Option
5. Science

Second Year

1. English 2
2. Greek 1
3. Hebrew 1
4. Option
5. Philosophy 1 or 2

Third Year

1. Option
2. Greek 2
3. Hebrew 2
4. Option
5. Option

Fourth Year

1. An Arts course
2. Church History
3. Systematic Theology
4. O. T. Criticism
5. N. T. Criticism
6. Practical Theology and Public Speaking

Fifth Year

1. Church History
2. Systematic Theology
3. O. T. Criticism
4. N. T. Criticism
5. Practical Theology

Sixth Year

1. Church History
2. Systematic Theology
3. O. T. Criticism
4. N. T. Criticism
5. Practical Theology

Students who have Matriculation in Greek will take Greek 1 and 2 in the first two years, and a freely chosen class in place of Greek 2 in the third year.

In choosing options students must plan to complete three courses in each of two subjects by the end of the fourth year.

DETAILS OF COURSES OF INSTRUCTION

BIBLICAL LITERATURE

PROFESSOR—Rev. H. A. Kent, M.A., D.D., F.R.S.A.

LECTURER—Rev. S. MacLean Gilmour, B.D., Ph.D.

REGULATIONS AND ANNOUNCEMENTS

Courses 1 and 2 are offered in alternate years. They are open to any student who has satisfied the requirements for concentration and distribution but needs one or more classes to make the necessary total for a degree.

BIBLICAL LITERATURE 1. OLD TESTAMENT LITERATURE AND HISTORY.

The beginnings of Hebrew literature; ballads; war-songs; folklore and Saga; historical prose; the literary sources of the Hexateuch and historical books; the origin and development of prophecy; Hebrew poetry and wisdom literature; the Apocryphal and Apocalyptic writings. Hebrew political history down to the Maccabean period, and the relation of the Hebrew people to the surrounding nations of antiquity.

Offered in 1940-41, but not in 1941-1942.

Text-books:

Bewer, *Literature of the Old Testament* (Columbia University Press).

Dinsmore, *The English Bible as Literature* (Houghton Mifflin Company).

Other reading to be assigned.

Tuesday, Thursday, and Friday at 1.

BIBLICAL LITERATURE 2. NEW TESTAMENT LITERATURE AND HISTORY.

Origin of New Testament writings: Codices and Manuscripts; the Latin Bible; the English Versions; the Gospels studied as the literary sources of the teaching of Jesus; the Synoptic and Johannine Problems; the life and letters of St. Paul; the Christian Apocalypses; the social and religious conditions in the Roman Empire and the spread of Christianity up to the end of the first century.

Offered in 1941-1942, but not in 1940-1941.

Text-books:

Moffatt, *New Translation of the New Testament*.

Nock, *St. Paul* (Home University Library).

Scott, *The Literature of the New Testament* (Columbia University Press).

Other reading to be assigned.

CLASSICS

PROFESSOR OF CLASSICS—H. L. Tracy, B.A., Ph.D.

ASSOCIATE PROFESSOR OF GREEK AND ROMAN HISTORY—L. E. Law, M.A.

ASSISTANT PROFESSORS OF CLASSICS—Mary L. Macdonnell, M.A.

A. A. Day, M.A., Ph.D.

CLASSICAL LITERATURE

CLASSICAL LITERATURE 1.

A general course open to those who wish to study in English translations the literature of Greece and Rome.

Prescribed texts:

1. In the Modern Library: Homer, Vergil.
2. In the Everyman series: Aeschylus, Sophocles, Euripides (vol. 2 only), Aristophanes (*The Acharnians*, etc.).

Reference books:

1. Mythology: Bianchi, *The Mythology of Greece and Rome*; Bulfinch, *Mythology*.
2. Drama: Aristophanes (*The Frogs*, etc., Everyman); Plautus (Loeb, vol. 2), Terence (Loeb).
3. Satire. Herodes, Horace, Juvenal (Loeb).
4. Pastoral: *Theocritus, Bion, and Moschus* (Golden Treasury Series).
5. Biography: *Socratic Discourses* (Everyman); Plutarch, *Lives* (Everyman, vol. 3); Suetonius (Loeb).
6. Literary Criticism: Horace, *Satires*, etc. (Loeb); *Aristotle on the Art of Poetry*, Cooper, (Harcourt, Brace and Co.).
7. General: *History of Ancient Greek Literature*, Murray; *Latin Literature*, Mackail.

Reference books will be made available to extramural students through the University Library.

Tuesday, Thursday, and Saturday at 9.

Professor Tracy.

LATIN LANGUAGE AND LITERATURE

GENERAL NOTICE

For the Pass classes, Lewis' *Latin Dictionary for Schools* (Oxford University Press) is recommended, or Lewis' *Elementary Latin Dictionary* (Oxford University Press). Honours students must provide themselves with Lewis and Short's *Latin Dictionary* (Oxford University Press), and Allen and Greenough's *New Latin Grammar* (Ginn and Co.).

REGULATIONS AND ANNOUNCEMENTS

1. Latin 1 is prerequisite to Latin 2, and Latin 2 to all other courses in Latin.

2. A student taking Latin as one of his main subjects on a Pass Course will take Latin 1, 2 and *one* of Latin 10, 11, Classical Literature 1, Greek and Roman History 4.

3. For Honours in Latin, a student must take:

(a) Twelve courses for Major as follows:

Latin 1, 2, 10, 11, 15, 21 *or* Greek and Roman History 52, and Greek and Roman History 51, with two supporting courses: when Greek is the Minor, supporting courses will be Greek 10 and Greek and Roman History 52 (if not already chosen) *or* 53; when English is the Minor, supporting courses will be *two* of Greek and Roman History 53, an Honours course in History, and French 1 *or* German 1; when French is the Minor, supporting courses will be *two* of Greek and Roman History 53, an Honours course in History, and an Honours course in English. Latin 2 and 10 (*or* 11) should be taken in the same session.

Three Reading courses: when Greek is the Minor, any three; otherwise, Classics R 1, R 2, R 4.

(b) Five courses for Minor in Greek, French, English *or* Philosophy.

(c) Six compulsory general courses to complete the work for degree, as follows (it is recommended that Greek and Roman History 4 be taken as a free option):

With Minor in Greek *or* French: English 1, 2, Philosophy 1, one science, two free options.

With Minor in English: French 1 *or* German 1 *or* Greek 1, Philosophy 1, one science, three free options.

With Minor in Philosophy: English 1, 2, French 1 *or* German 1 *or* Greek 1, one science, two free options.

(d) A Minor in Latin will normally consist of Latin 1, 2, 10 or 11, 15, and 21.

4. Honours students will continue throughout their course the study of syntax and composition. These are part of the prescription for Latin 10, 11, 15, 21. (As Latin 10 and 11 are given in alternate years, an honours student will take syntax in whichever of these two courses he takes first.)

5. For details of the honours course in Latin, French, and Greek, see page 84.

6. For information in regard to Scholarships in Latin see page 56.

COURSES OF INSTRUCTION

LATIN 1. Translation and Interpretation of Prescribed Texts, Sight Translation, Prose Composition.

Texts:

Selections from Latin Authors, Watt and Hayes (London, University Tutorial Press).

Latin Prose Composition, Tracy and Law (Clarke, Irwin and Co.).

A tutorial period will be given for the benefit of students who desire extra assistance.

Monday, Wednesday, and Friday at 10.

Professor Day.

LATIN 2. Translation and Interpretation of Prescribed Texts, Sight Translation, Prose Composition.

Texts:

Cicero's Correspondence, Irvine (Cambridge, University Press).

Livy, Book I, Edwards (Cambridge, University Press).

Oxford Book of Latin Verse (School edition: Oxford, University Press).

Exercises in Latin prose composition will be assigned.

Extramural students should supply themselves with the *Classical Dictionary* in the Everyman series (J. M. Dent), and *Roman Literature*, Wilkins (Literature Primers: Macmillan).

The W. W. Near Scholarship of \$100 is awarded to the student standing highest in the course at the final examination.

Tuesday, Thursday, and Saturday at 11.

Professor Tracy.

LATIN 10. LYRIC POETRY, LETTERS.

Texts:

Catullus, Merrill (Ginn and Co.).

Horace, *The Odes and Epodes*, Shorey and Laing (B. H. Sanborn and Co.).

Pliny, *Select Letters*, Prichard and Bernard (Oxford, University Press).

Vergil, *Eclogues; P. Vergili Maronis Opera*, Sidgwick (Cambridge, University Press).

Tuesday, Thursday, and Saturday at 10.

Note: Instead of Vergil, honours students will have one hour each week in syntax, unless they have already had syntax in Latin 11. (See p. 95, regulation 4.)

LATIN 11. COMEDY, SATIRE, AND PASTORAL POETRY.

Texts:

Plautus, *Mostellaria*, Fay (Allyn and Bacon).

Terence, *The Comedies of Terence*, Ashmore (Oxford, University Press).

Juvenal, *Satires*, Duff (Cambridge, University Press).

(Not given 1940-1941).

LATIN 15. A BIOGRAPHICAL STUDY OF CICERO.

Texts:

Cicero, *Selected Letters*, Abbott (Ginn and Co.).

Cicero, *Brutus* (texte seul: Collection des Universités de France).

Cicero, *Pro Archia*, Reis, editio minor (Teubner).

Cicero, *De Natura Deorum*, Plasberg (Teubner).

Cicero, *Tusculanae Disputationes*, Pohlenz (editio minor: Teubner).

Monday, Wednesday, and Friday at 10.

LATIN 21. EPIC AND DIDACTIC POETRY.

Texts:

Vergil, *P. Vergili Maronis Opera*, Sidgwick (Cambridge, University Press).

Lucretius, Books I and III. Duff (Cambridge, University Press).

Tuesday, Thursday, and Saturday at 10.

GREEK LANGUAGE AND LITERATURE

GENERAL NOTICE

Liddell and Scott's *Greek Dictionary* (abridged edition) is recommended. A *Greek Grammar*, preferably that of Goodwin and Gulick, or Smyth, is necessary.

REGULATIONS AND ANNOUNCEMENTS

1. Greek A may be counted towards a degree under conditions specified in sections 15 and 16, GENERAL REGULATIONS. Under these regulations students who enter the University without matriculation in Greek, and who wish to specialize in this subject, may complete their programme of work in the usual time.

2. Students offering Greek as one of the main subjects on a Pass Course will take *either* Greek A, 1 and 2, *or* Greek 1, 2 and *one* of Greek 10, 11, Classical Literature 1, Greek and Roman History 4.

3. For Honours in Greek a student must take:

(a) Twelve courses for Major as follows:

Greek 1, 2, 10, 11, 21, 26 *or* Greek and Roman History 52, and Greek and Roman History 51, with two supporting courses: Latin 10 and Greek and Roman History 53 if Latin is the Minor; Latin 2 and Politics 2 if Philosophy is the Minor. Greek 2 and 10 (*or* 11) should be taken in the same session.

Three Reading courses: Classics R 1, R 3, and one other.

(b) Five courses for Minor in Latin or Philosophy.

(c) Six compulsory general courses to complete the work for degree (it is recommended that Greek and Roman History 4 be taken as a free option).

With Latin as Minor: English 1, 2, Philosophy 1, one science, two free options.

With Philosophy as Minor: English 1, 2, Latin 1, one science, two free options.

(d) A Minor in Greek will normally consist of Greek 1, 2, 10 *or* 11, 21, 26 (*or* Greek and Roman History 51, when Latin is not the Major).

4. For information in regard to Scholarships in Greek see page 56.

COURSES OF INSTRUCTION

GREEK A. FOR BEGINNERS.

Texts:

A First Greek Course, Donaldson (Cambridge University Press).

Greek Grammar, Goodwin and Gulick (Ginn and Co.).

The object of the course is to prepare students for entering the regular classes in Greek, and to cover an amount of work as nearly as possible the equivalent of Matriculation Greek. The elements of the language will be the chief concern.

Monday at 1. Tuesday, Thursday, and Saturday at 9.
Professor Macdonnell.

GREEK 1.

Texts:

Greek Reader, Freeman and Lowe (Oxford, Clarendon Press).

The Iliad, I-XII, Leaf and Bayfield (Macmillan).

The Acts of the Apostles. Westcott and Hort's *New Testament*.

Greek Prose Composition, Pitman (Macmillan).

Monday, Wednesday, and Friday at 11.

The Maclellan Scholarship of \$20 is awarded to the student standing highest in the course at the final examination.

Professor Tracy.

GREEK 2.

Texts:

Euripides, *Alcestis*, Earle (Macmillan).

Plato, *Apology*, Stock (Oxford, Clarendon Press).

The Acts of the Apostles. Westcott and Hort's *New Testament*.

Greek Prose Composition, North and Hillard (Rivingtons).

Monday, Wednesday, and Friday at 11.

The Flossie May Bogart Scholarship of \$80 is awarded to the student standing highest in the course at the final examination.

Professor Macdonnell.

GREEK 10. EPIC POETRY, ORATORY.

One hour each week will be devoted to the study of morphology, the other two to the reading of Homer and Demosthenes.

Texts:

Demosthenes, *Olynthiacs*, Abbott and Matheson (Oxford, Clarendon Press).

Homer, *Odyssey I-XII*, Merry (Oxford, Clarendon Press).

Greek Grammar, Goodwin and Gulick (Ginn and Co.).

Tuesday, Thursday and Saturday at 9.

GREEK 11. HISTORIANS, COMEDY.

Texts:

Thucydides, Books I and II, Marchant (Macmillan).

Aristophanes, *Acharnians*, and *Clouds*, Merry (Oxford, Clarendon Press).

Lectures will be given on syntax.

(Not given 1940-1941).

GREEK 21. TRAGEDY, BIOGRAPHICAL STUDY OF SOCRATES.

Texts:

Sophocles, *Antigone*, Jebb (Abridged edition; Cambridge, Pitt Press).

Readings on Socrates will be prescribed from Plato and Xenophon.

Monday, Wednesday, and Friday at 11.

GREEK 26.

A history of ancient philosophy and the development of modern thought. This course is for the current session the same as Philosophy 10 and will be given by the Department of Philosophy. Philosophy 1 is prerequisite.

READING COURSES IN CLASSICS

Students are urged to cover as much as possible of their Reading Courses during vacation.

R 1. CLASSICAL TRAGEDY. Aeschylus, *Agamemnon*; Sophocles, **Oedipus Tyrannus*; Euripides, *Hippolytus*, **Medea*; Seneca, *Oedipus*, *Phaedra*; Corneille, *Médée* or *Oedipe*; Racine, *Andromaque*, *Phèdre*; Voltaire, *Oedipe*, *Oreste*; Dryden, *Oedipus*.

Sheppard, *Greek Tragedy*; Murray, *Ancient Greek Literature*; Lucas, *Seneca and Elizabethan Tragedy*; Wright, *French Classicism*; de Julleville, *Le Théâtre en France*; Faguet, *Propos de Théâtre*, essays on Racine in vols. 1 and 3; Vaughan, *Types of Tragic Drama*; Lucas, *Tragedy*; Nettleton, *English Drama of the Restoration and Eighteenth Century*; *Cambridge History of English Literature*, vol. VIII, the relevant chapters.

Classics students will read the plays marked * in Greek. Latin-French students will select for reading in the original any two of the French plays listed above. The remainder, in each case, will be studied in translations.

R 2. LIFE AND LETTERS IN THE EARLY EMPIRE.

The following are to be read in the original:

Tacitus, *Annals*, XIII, XIV (Furneaux, Oxford University Press).

Martial, *Epigrams*: Books I-VI in *Martial, Select Epigrams*, Bridge and Lake (Oxford, Clarendon Press).

The above are to be supplemented by readings in the following books:

Capes, *The Early Empire*.

Dill, *Roman Society from Nero to Marcus Aurelius*.

Special study should be made of such topics as the following: the social orders, freedmen and their influence in society, slavery, the sources of private wealth, clientship, the Christians in Rome. References to these subjects may be found in the books listed below.

Friedländer, *Roman Life and Manners* (translated by Freese).

Davis, *The Influence of Wealth in Imperial Rome*.

Duff, *Freedmen in the Early Roman Empire*.

Rostovtzeff, *Economic and Social History of the Roman Empire*.

Students may make either an exhaustive study of one or two of these topics, or a general survey of the prescribed period.

R 3. THE ODYSSEY OF HOMER.

Homer, *Odyssey*, ed. W. W. Merry (2 vols., Oxford, Clarendon Press).

D. B. Munro, *A Grammar of the Homeric Dialect*.

Victor Bérard, *Did Homer Live?*

R. C. Jebb, *Homer: An Introduction to the Iliad and the Odyssey*.

W. J. Woodhouse, *The Composition of Homer's Odyssey*.

Walter Leaf, *Homer and History*.

T. D. Seymour, *Life in the Homeric Age*.

Andrew Lang, *Homer and the Epic*.

R 4. GREEK AND ROMAN RELIGION, ART, SOCIAL LIFE, LITERATURE, selected topics.

A full bibliography cannot be given here. The basic books in the various fields are listed; others will be recommended to students when they have chosen their special topics. Religion: Moore, *The Religious Thought of the Greeks*; Bailey, *Phases in the Religion of Ancient Rome*. Art: P. Gardner, *Principles of Greek Art*; Walters, *The Art of the Romans*. Social Life: Glotz, *Ancient Greece at Work*; Warde Fowler, *Social Life at Rome*. Literature: Murray, *History of Ancient Greek Literature*; Mac-kail, *Latin Literature*.

R 5. A syllabus of reading will be assigned to students who wish to study some particular field, such as: an ancient historian (in the original), a period of Greek History, a period of Roman History, etc.

GREEK AND ROMAN HISTORY

REGULATIONS AND ANNOUNCEMENTS

The courses listed below, together with History 1 or Politics 2, may be taken as a Minor with Majors in History, Politics, French, etc. The Minor will then consist of History 1 (or Politics 2), Greek and Roman History 4, 51, 52, 53. Students may choose either History 1 or Politics 2 as they wish, but if History 1 is taken in the Major, Politics 2 must be taken here.

In these courses the comparative method will be largely used. Stress will be laid on similarities and differences between the ancient order and the modern, particularly in respect of social institutions.

COURSES OF INSTRUCTION

GREEK AND ROMAN HISTORY 4. A Survey of Greek and Roman Society.

An introductory account of Greek and Roman political and social development; the period from the rise of the Greek city-states to the death of Constantine will be studied and the student will be expected to pay particular attention to those aspects of Greek and Roman society which are most important for an appreciation of modern ideas and institutions.

Texts:

Treuer, *History of Ancient Civilization*, 2 vols. (Harcourt, Brace).

Thucydides, *History of the Peloponnesian War* (Everyman).

Certain other works dealing with special problems or aspects of Greek and Roman History will be available to extramural students through the lending facilities of the University Library.

Tuesday, Thursday, and Saturday at 11.

Professor Day.

GREEK AND ROMAN HISTORY 51. Comparative Social Institutions.

Lectures, weekly essays and discussions on questions relating to the structure of society. The scope of the course is not confined to Greco-Roman civilization.

Hours to be arranged.

Professor Law.

GREEK AND ROMAN HISTORY 52. Greek Social Philosophy.

Discussion of essays on ethical and political theory with special reference to Plato and Aristotle.

Hours to be arranged.

Professor Law.

GREEK AND ROMAN HISTORY 53. Comparative Forms of Government.

A comparative study of some ancient and modern forms of autocracy and democracy. The course will be based on weekly essays and discussions.

Given in alternate years with Greek and Roman History 52; next offered 1941-42.

Graduate Courses

Lecture courses and directed special studies will be offered in Latin, Greek, or Greek and Roman History as needed.

ENGLISH LANGUAGE AND LITERATURE

PROFESSOR—George Herbert Clarke, M.A., D.Litt., F.R.S.C.,
F.R.S.L.

PROFESSOR—James Alexander Roy, M.A.

PROFESSOR—Henry Alexander, M.A.

ASSOCIATE PROFESSOR—Wilhelmina Gordon, M.A.

(on leave of absence).

ASSISTANT PROFESSOR—Charles J. Vincent, M.A., Ph.D.

LECTURER—William Angus, M.A., Ph.D.

LECTURER—M. H. M. MacKinnon, M.A.

REGULATIONS AND ANNOUNCEMENTS

1. English 1 and 2 are required of all candidates for a degree in Arts. English 1 is prerequisite to English 2. English 2 is prerequisite to all courses numbered higher except English 10, which candidates for honours in English should take during the same year as English 2.

2. English 3 and 4 are open to students offering English as one of the main subjects for a Pass degree. Those taking only three courses in Pass English may select either English 3 or English 4. Those taking four courses should register in English 3 first.

3. For Honours in English a student must take:

(a) Twelve courses for the Major, as follows:

Eight courses in English: 1, 2, 10, 14a, 14b, 18, 16b, 17a or 19a, 20, 22, with one supporting course, Latin 2.

Three Reading courses in English: R 1, R 2 (or R 3), R 4.

(b) Five courses for the Minor, in History, French, Latin, Greek, German, Philosophy, or Spanish. (Note: When the Minor is Latin, the supporting course for the Major normally will be French 2.)

(c) Six compulsory general courses to complete the work for a degree:

With History as Minor: Latin 1, French 1 or Greek 1 or German 1, Philosophy 1, one science, two free options. (French 2 is recommended).

With French as Minor: Latin 1, Philosophy 1, one science, three free options. (History 1 or 5 and German 1 are recommended).

With Latin as Minor: French 1 or Greek 1 or German 1, Philosophy 1, one science, three free options. (French 2 and History 1 or 5 are recommended).

With Greek as Minor: Latin 1, Philosophy 1, one science, three free options. (History 1 or 5 and French 1 or German 1 are recommended).

With German as Minor: Latin 1, Philosophy 1, one science, three free options. (History 1 or 5 and French 1 are recommended).

With Philosophy as Minor: Latin 1, French 1 or German 1 or Greek 1, one science, three free options. (History 1 or 5 and French 2 are recommended).

- (d) A Minor in English will consist normally of English 1, 2, 10, 18, and 20.
- (e) Students offering English in the General Honours course will take the minor as prescribed in (d), together with either R 1 or R 4.

4. A student wishing to complete the academic requirements for specialist standing in English with History as Minor must take a Major in English and the following five courses in History: History 1, 3, 16 and two of 17, 18a and 19b, 24, 28a and 29b. French 1, 2 or German 1, 2 must be included in the general courses. The free option should be taken in one of the languages.

5. Except by special permission of the Department, students making English their major subject in Honours must take the courses in the following order: 2, 10; 14a, 14b, 18 and R 1; 16b, 17a (or 19a), R 2 (or R 3); 20, 22, R 4.

6. Provision will be made for special work in Advanced Composition, in connection with courses 20 and 22.

7. For information concerning Scholarships in English see page 57.

COURSES OF INSTRUCTION (Pass)

Note: Students in each of the following courses will be furnished with a list of recommended reference books in addition to those required.

ENGLISH 1. PROSE COMPOSITION, WITH LITERARY BACKGROUND.

A practical course in Prose Composition, with parallel reading. In the examination both knowledge of the texts and ability to write clearly and correctly will be required.

Prescribed texts:

Foerster and Steadman, *Writing and Thinking*. (Boston: Houghton Mifflin Company; Toronto: Thomas Allen).

J. D. McCallum (ed.), *The Revised College Omnibus*. (New York: Harcourt, Brace and Company).

In addition to the foregoing each student must possess a satisfactory English dictionary, preferably the *Concise Oxford Dictionary* (Toronto: Oxford University Press).

Monday, Wednesday, Friday, at 10.

Tuesday, Thursday, Saturday, at 8.

ENGLISH 2. A GENERAL INTRODUCTION TO ENGLISH LITERATURE.

This course is intended to provide a general knowledge of the history and development of English Literature, and to lay a foundation for the advanced specialized courses. It deals both with periods and with types, and seeks to encourage in the student some critical appreciation of literary values. Students will be required to write several essays each term.

Prescribed texts:

Lieder, Lovett and Root (eds.), *British Poetry and Prose* (two vols.) Boston: Houghton Mifflin Company. Toronto: Thomas Allen).

For reference:

Moody and Lovett, *A History of English Literature* (New York: Charles Scribner's Sons).

George B. Woods, *Versification in English Poetry* (Chicago: Scott, Foresman and Company).

Sections A and B. Monday, Wednesday, Friday, at 9.

Sections C and D. Tuesday, Thursday, Saturday at 11.

ENGLISH 3. ADVANCED PASS ENGLISH.

A study of English prose fiction and drama as far as the middle of the nineteenth century.

Prescribed texts:

The following novels, in such inexpensive form as Dent's Everyman edition or the World's Classics Series: Bunyan, *The Pilgrim's Progress*; Defoe, *Robinson Crusoe*; Goldsmith, *The Vicar of Wakefield*; Jane Austen, *Pride and Prejudice*; Scott, *The Antiquary*; Dickens, *David Copperfield*; Thackeray, *Vanity Fair*; Trollope, *Barchester Towers*. Other novels may be added.

Matthews and Lieder, *The Chief British Dramatists* (Boston: Houghton Mifflin Company).

Other reading, of representative plays and of reference works, will also be prescribed.

Monday, Wednesday, Friday at 11.

ENGLISH 4. ADVANCED PASS ENGLISH.

A study of Modern English drama, fiction and poetry.

Prescribed Texts:

Watson and Pressey, *English and Irish Plays*, vols. I and II in Contemporary Drama Series (New York: Charles Scribner's Sons).

Untermeyer, *Modern British Poetry* (New York: Harcourt, Brace and Company).

Six novels by Butler, Wells, Lawrence, Galsworthy, Huxley, and Woolf.

Other reading, of representative plays and of reference works, will also be prescribed.

Monday, Wednesday, Friday at 11.

Dr. Angus (first term) and Professor Vincent (second term).

COURSES OF INSTRUCTION (Honours)

ENGLISH 10. AN INTRODUCTION TO HONOURS IN ENGLISH.

To be taken during the same year as English 2. A general study of the history of the English language, of verse-forms, and of the fundamental principles of literary criticism.

Prescribed texts:

A. C. Baugh, *A History of the English Language* (New York: D. Appleton—Century Company).

Cowardin and More, *The Study of English Literature*. (New York: Henry Holt and Company. Toronto: Clarke, Irwin and Company).

C. E. Vaughan, *English Literary Criticism* (London and Toronto: Blackie and Son).

Tuesday, Thursday, Saturday at 10.

Professor Alexander (first term) and Professor Clarke (second term).

ENGLISH 14a. OLD ENGLISH.

Prescribed text:

Krapp and Kennedy, *An Anglo-Saxon Reader* (New York: Henry Holt and Company).

Monday, Wednesday, Friday at 9.

Professor Alexander.

ENGLISH 14b. MIDDLE ENGLISH.

A study of the transition writers and of Chaucer's development, based on the following works: *The Romaunt of the Rose*, *Book of the Duchesse*, *Parlement of Foules*, *Troilus and Criseyde*, *House of Fame*, *Prologue to the Legend of Good Women*, *The Canterbury Tales*.

Prescribed texts:

Chaucer's Complete Works, edited by F. N. Robinson (Boston: Houghton Mifflin Company).

The Nun's Priest's Tale, edited by K. Sisam (Toronto: Oxford University Press).

Grace Hadow, *Chaucer and His Times*, Home University Library (New York: Henry Holt and Company; Toronto: Clarke, Irwin and Company).

R. Morris, *Specimens of Early English*, Vol. I (Toronto: Oxford University Press).

Monday, Wednesday, Friday at 9.

Professor Alexander.

ENGLISH 18. SHAKESPEARE.

A review of the life and environment of Shakespeare, and of his development as a dramatist, with lectures on the lives and works of his chief forerunners and contemporaries. In the study of Shakespeare's works his leading comedies will be first considered, and thereafter his tragedies and last plays.

Prescribed texts:

J. W. MacKail, *The Approach to Shakespeare* (Toronto: Oxford University Press).

J. Q. Adams, *The Life of William Shakespeare*, Student's edition. (Boston: Houghton Mifflin Company).

The Complete Works of Shakespeare Gathered into One Volume (Oxford: Basil Blackwell, for the Shakespeare Head Press; Toronto: Oxford University Press).

A. C. Bradley, *Shakespearean Tragedy* (London and Toronto: The Macmillan Company).

Monday, Wednesday, Friday, at 10.

Professor Clarke.

ENGLISH 16b. SPENSER AND MILTON.

This course is concerned chiefly with the poetry of Spenser and of Milton, but it includes also a study of the Elizabethan and Seventeenth Century lyric and some prose criticism.

Prescribed texts:

Edmund Spenser, *Poems*. (Any edition, preferably that published by the Oxford University Press).

Philip Sidney, *An Apologie for Poetrie* (Toronto: Oxford University Press).

John Milton, *Poems*. (Any edition, preferably that published by the Oxford University Press).

John Milton, *Areopagitica*. (Toronto: Oxford University Press).

Any anthology of English verse including Elizabethan lyrics. *Metaphysical Lyrics and Poems of the Seventeenth Century*,

edited by H. J. C. Grierson. (Toronto: Oxford University Press).

Recommended reading: Emile Legouis, *Spenser* (Toronto: J. M. Dent and Sons); Helen Darbishire, *The Early Lives of Milton* (London: Constable and Company).

Tuesday, Thursday, Saturday, at 11.

*ENGLISH 17a. THE CLASSICAL AGE (Non-dramatic Literature).

English non-dramatic literature from 1660 to 1798. This course deals primarily with the critical theories of Dryden, Pope, Johnson and other neo-classicists, and considers also the work of the Pre-Romantics.

Prescribed texts:

Odell Shepard and Paul Spencer Wood (eds.), *English Prose and Poetry, 1660-1800*. (Boston: Houghton Mifflin Company).

Dryden, *Poems*; Pope, *Poems* (Globe editions). (London and Toronto: The Macmillan Company).

Reference works:

English Critical Essays of the Seventeenth and Eighteenth Centuries (Toronto: Oxford University Press).

Matthew Arnold (ed.), *Johnson's Lives of the Poets* (London and Toronto: The Macmillan Company).

Tuesday, Thursday, Saturday, at 11.

Professor Roy.

*ENGLISH 19a. RESTORATION AND EIGHTEENTH CENTURY DRAMA.

Prescribed text:

Nettleton and Case, *British Dramatists from Dryden to Sheridan* (Boston: Houghton Mifflin Company).

Reference works:

G. H. Nettleton, *English Drama of the Restoration and Eighteenth Century*. (London and Toronto: The Macmillan Company).

Allardyce Nicoll, *History of Restoration Drama*. (Cambridge University Press).

Allardyce Nicoll, *History of Early Eighteenth Century Drama*. (Cambridge University Press).

Montagu Summers, *The Restoration Theatre*. (London: Kegan Paul, French, Trubner and Company).

Professor Roy.

* Courses 17a and 19a are offered in alternate years. For 1940-1941 Course 17a is offered.

ENGLISH 20. ENGLISH LITERATURE FROM 1798 TO 1832.

Students are expected to be familiar with the poetry of Blake, Burns, Crabbe, Coleridge, Wordsworth, Scott and Southey, and of Byron, Shelley and Keats; Lamb, *Essays of Elia*; Hazlitt, *The Spirit of the Age* and *Table Talk*; Wordsworth, *Preface to Lyrical Ballads*; Coleridge, *Biographia Literaria*, Chaps. 14-22; Dorothy Wordsworth, *Journals*; Southey's *The Doctor*; Hunt's *Autobiography*; Moore's *Diary*; Letters of Wordsworth, Lamb, Byron, Shelley, Keats.

Prescribed texts:

William Wordsworth, *Poems*. (Toronto: Oxford University Press).

George Gordon Byron, *Poems*. (Toronto: Oxford University Press).

The Complete Poems of Keats and Shelley (Modern Library). (Toronto: The Macmillan Company).

Any editions of the Poetical Works of Coleridge and Scott.

Reference works:

English Critical Essays of the Nineteenth Century. (Toronto: Oxford University Press).

Odell Shepard and Paul Spencer Wood (eds.), *English Prose and Poetry, 1660-1800*. (Boston: Houghton Mifflin Company).

Ernest Bernbaum, *Guide Through the Romantic Movement*, Vol. I, (Toronto: Thomas Nelson and Sons).

Tuesday, Thursday, Saturday, at 9.

Professor Roy.

ENGLISH 22. THE VICTORIAN AND GEORGIAN PERIODS.

English Literature from 1837 to the Present.

Prescribed texts:

J. W. Cunliffe and M. B. Pickel, *Century Readings in Victorian Prose*. (New York: D. Appleton—Century Company).

George B. Woods, *Poetry of the Victorian Period*. (Chicago: Scott, Foresman Company).

Any editions of the Poetical Works of Tennyson, Clough, Arnold, Browning, Swinburne and Hardy.

Monday, Wednesday, Friday, at 11.

Professor Clarke.

READING COURSES IN ENGLISH:

R 1. The Novel.

Students will be expected to familiarize themselves with the following novels, noticing particularly the relative importance of the story or plot, the characters, and the setting. It is advisable to read them in chronological order, so far as possible.

- (1) Bunyan, *The Pilgrim's Progress*; Addison, the *Spectator* papers on Sir Roger de Coverley; Defoe, *Robinson Crusoe*; Goldsmith, *The Vicar of Wakefield*; Scott, *The Antiquary* or *The Heart of Midlothian*; Dickens, *David Copperfield*.
- (2) One novel by each of the following writers: Richardson (abridged version), Fielding (or Smollett), Horace Walpole (or Mrs. Radcliffe), Jane Austen, Thackeray, Charlotte Brontë.
- (3) Three of the following novels: Hardy, *The Return of the Native* or *Tess of the D'Urbervilles*; Meredith, *Diana of the Crossways* or *The Egoist*; Trollope, *Barchester Towers*; Stevenson, *Kidnapped* or *Weir of Hermiston*.
- (4) Two of the following novels: Barrie, *A Window in Thrums*; Galsworthy, *The Forsyte Saga*; Bennett, *The Old Wives' Tale*.
- (5) One novel by any one of the following authors: Virginia Woolf, Hugh Walpole, Rose Macaulay, E. M. Forster, Somerset Maugham.

Many of these books, except the most recent, are published by the Oxford University Press, J. M. Dent and Sons, or Thomas Nelson and Sons.

- (6) Two short stories by each of the following authors: Stevenson, Kipling, Katherine Mansfield.

Reference Works: (These books are suggested for consultation only). W. A. Raleigh, *The English Novel* (London, John Murray); Anthony Trollope, *An Autobiography* (World's Classics); A. Chevalley, *The Modern English Novel*, translated by B. R. Redman (New York, Alfred A. Knopf); J. T. Frederick, *A Handbook of Short Story Writing* (New York: Alfred A. Knopf).

R 2 and R 3 are alternating courses. During the session 1940-1941 students will take R 3 and will proceed the following year to R 4.

R 2. Modern English Criticism.

Students will be expected to familiarize themselves with the history and genius of modern English criticism as represented in the following works: Wordsworth, *Prefaces*, (the 1800 *Preface* to be compared with Dante's *De Vulgari Eloquentia*); Coleridge, *Lectures on Shakespeare*, *Biographia Literaria*, Chaps. 14-22; Lamb, *Specimens of English Dramatic Poets*; Peacock, *The Four Ages of Poetry*; Shelley, *A Defence of Poetry*; Hazlitt, *The English Poets*, *The Spirit of the Age*; Carlyle, *Essay on Scott*, *Essay on Burns*; Campbell, *Lectures on Poetry*; Matthew Arnold, *Essays in Criticism*, *Culture and Anarchy*, *On Translating Homer* (in part); Landor, *Imaginary Conversations*; Pater, *Apprecia-*

tions. The student must also be familiar with the critical theories of Wilson ("Christopher North"), De Quincey, Lockhart, Hartley Coleridge, Maginn, Thackeray, Macaulay, Newman and Ruskin.

Prescribed Texts:—

English Critical Essays of the Nineteenth Century. (Toronto: Oxford University Press).

English Critical Essays of the Twentieth Century. (Toronto: Oxford University Press).

D. Nichol Smith (ed.), *Shakespeare Criticism.*

Everyman's Library (Toronto: J. M. Dent and Sons) includes many of the other works indicated.

Reference Works: (these books are suggested for consultation only): T. S. Omond, *The Romantic Triumph*; G. Saintsbury, *The History of Criticism, The Later Nineteenth Century*; R. J. White, *The Political Thought of Samuel Taylor Coleridge*, (London: Jonathan Cape; Toronto: Thomas Nelson and Sons); H. Walker, *The Literature of the Victorian Era*; Louis Cazamian, *Criticism in the Making*; F. R. Leavis (ed.), *Determinations*; Herbert Read, *Reason and Romanticism*; Edwin B. Burgum, *The New Criticism* (New York: Prentice-Hall); Walter Graham, *English Literary Periodicals* (Toronto: Thomas Nelson and Sons); *The Cambridge History of English Literature.*

Professor Roy.

R 3. Modern Drama.

This reading course surveys the field of nineteenth and twentieth century drama in England and in Europe. Introductory: Knowles, Jerrold, Bulwer-Lytton, Boucicault, Taylor. The Victorian Transition: Robertson, Gilbert, Jones, Pinero, Wilde, Shaw, Barrie, Galsworthy, Granville-Barker, Hankin. The Irish Drama: Yeats, Lady Gregory, Synge, Cullen, Dunsany; Houghton and other Realists: Elizabeth Baker, Githa Sowerby. Poetic Dramatists: Masfield, Drinkwater. Post-war drama: Milne, Coward, O'Casey. Tendencies in Contemporary Drama.

Prescribed Texts:—

S. M. Tucker, *Modern American and British Plays.* (New York: Harper and Brothers).

Watson and Pressey, *Contemporary Drama: English and Irish.* (two vols.). (New York: Charles Scribner's Sons).

C. H. Whitman, *Representative Modern Dramas.* (Toronto: The Macmillan Company).

Reference Works (these books are suggested for consultation only):

M. J. Moses, *Representative British Dramas, Victorian and Modern*; A. Nicoll, *An Introduction to Dramatic Theory, British Drama, The English Theatre*; Gordon Craig, *The Art of the*

Theatre; H. Granville-Barker, *The Study of Drama, On Dramatic Method*; S. Cheney, *The Theatre*; D. C. Stuart, *The Development of Dramatic Art*; Canfield, *Plays of the Irish Renaissance and Plays of a Changing Ireland*; S. Gwynn, *Irish Literature and Drama*; T. H. Dickinson, *An Outline of Contemporary Drama*; *The Cambridge History of English Literature*; A. E. Morgan, *Tendencies of Modern English Drama*.

Professor Roy.

R 4. American and Canadian Literatures.

Part One

Prescribed Texts: W. F. Taylor, *A History of American Letters* (Toronto: W. J. Gage & Company); F. C. Prescott and G. D. Sanders, *An Introduction to American Prose; An Introduction to American Poetry* (New York: F. S. Crofts and Company).

Reference Works (these books are suggested for consultation only, particularly the first): W. P. Trent and others, *The Cambridge History of American Literature* (New York: G. P. Putnam's Sons); M. C. Tyler, *A History of American Literature during the Colonial Period, The Literary History of the American Revolution* (New York: G. P. Putnam's Sons); Barrett Wendell, *A Literary History of America* (New York: Charles Scribner's Sons); Russell Blankenship, *American Literature as an Expression of the National Mind* (New York: Henry Holt and Company); Warfel, Gabriel and Williams, *The American Mind*; John Macy, *The Spirit of American Literature* (New York: Boni & Liveright); W. C. Brownell, *American Prose Masters* (New York: Charles Scribner's Sons); E. C. Stedman, *Poets of America* (Boston: Houghton Mifflin Company); Carl Van Doren, *The American Novel* (Toronto: The Macmillan Company).

In addition to the prescribed texts, the student will be expected to familiarize himself with at least eight of the following works: Cooper, *The Last of the Mohicans*; Emerson, *English Traits*; Hawthorne, *The Scarlet Letter*; Holmes, *The Autocrat of the Breakfast Table*; Lowell, *Among My Books*; Melville, *Moby Dick*; Stockton, *Rudder Grange*; Mark Twain, *Huckleberry Finn* or *Personal Recollections of Joan of Arc*; James, *The Bostonians* or *Roderick Hudson*; Cable, *Old Creole Days*; Wharton, *The Age of Innocence* or *The Valley of Decision*; Norris, *The Octopus* or *The Pit*; Cather, *The Shadow of the Rock*; Hergesheimer, *Java Head*; Crane, *The Red Badge of Courage*; Howells, *A Modern Instance*; Page, *In Ole Virginia*; Sherman, *On Contemporary Literature*; Bradford, *American Portraits*.

Part Two

Prescribed Texts: R. P. Baker, *A History of English-Canadian Literature to the Confederation* (Boston: Harvard University Press); A. MacMechan, *Headwaters of Canadian Literature* (Toronto: McClelland & Stewart); E. K. and E. H. Broadus, *A Book of Canadian Prose and Verse*, Revised Edition (Toronto: The Macmillan Company); R. Knister, *Canadian Short Stories* (Toronto: The Macmillan Company); N. Hodgins, *Canadian Essays* (Toronto: Thomas Nelson & Sons); Bliss Carman and Lorne Pierce (eds.), *Our Canadian Literature* (Toronto: The Ryerson Press).

Reference Works (these books are suggested for consultation only): Shortt and Doughty, *Canada and Its Provinces* (Vol. XII); W. S. Wallace, *Dictionary of Canadian Biography*; Lorne Pierce, *An Outline of Canadian Literature*; Horning and Burpee, *A Bibliography of Canadian Fiction*; James, *A Bibliography of Canadian Poetry*.

In addition to the prescribed texts, the student will be expected to familiarize himself with representative selections of Canadian prose and poetry, emphasizing especially selections from the chief works of John Richardson, William Kirby, T. C. Haliburton, Gilbert Parker, C. G. D. Roberts, D. C. Scott, A. Lampman, Bliss Carman, Louis Hémon, Marjorie Pickthall, W. H. Drummond, Francis Sherman, E. J. Pratt, Mazo de la Roche, Stephen Leacock.

Professor Clarke.

GRADUATE COURSES

Lecture courses and Directed Special Studies will be prescribed by the Department upon application. (See page 200).

FRENCH

PROFESSOR—P. G. C. Campbell, M.A., Docteur de l'Université de Paris.

PROFESSOR—M. Tirol, O.I.P., L. ès L., Ph.D.

PROFESSOR—W. M. Conacher, B.A., D. ès L.

LECTURER—Glen Shortliffe, M.A., Ph.D.

INSTRUCTOR—Jeanne M. McConnell, Brevet Supérieur, C.A.P.

INSTRUCTOR—Alice (Monain) Day, L.ès L. et Phil. (Paris).

REGULATIONS AND ANNOUNCEMENTS

1. French 1 is prerequisite to French 2.

2. Students offering French as one of the main subjects on a Pass Course will take 1, 2, and 3. By special permission of the Head of the Department 10 or 12 may be substituted for 3 or taken as an extra course after 3.

3. For Honours in French a student must take:

(a) Twelve courses for Major as follows:

Eight courses in French: 1, 2; 10 and 12 in the first year of Honours, 11 and 20 in the second year, 21 and 22 in the third year, with one supporting course chosen from Latin 2, Greek and Roman History 4, Classical Literature, English 18, History 12 or 16.

Three Reading courses in French, R 1, R 2, R 3 or 4. (Reading Course 1 is prescribed as the Reading Course in French when French is one of the three special subjects on the General Honours Course.)

(b) Five courses for Minor in Latin, English, German, Spanish, History, or Greek and Roman History.

(c) Six compulsory general courses to complete the work for degree:
With Latin as Minor: English 1, 2, Philosophy 1, one science, two free options.

With German as Minor: English 1, 2, Latin 1, Philosophy 1, one science, one free option.

With Spanish as Minor: English 1, 2, Latin 1, Philosophy 1, one science, one free option.

With English as Minor: Latin 1, Philosophy 1, one science, three free options.

With History as Minor: English 1, 2, Latin 1, Philosophy 1, one science, one free option.

(d) A Minor in French consists of French 1, 2, 10, 11, and 21, taken in different years and in the order given.

4. All oral examinations must be taken at the University. They are compulsory for French 2, and to complete a Major or Minor in French.

5. Honour groups for conversation and phonetic study will meet at hours to be arranged at the beginning of term. This work is compulsory in each year of Honours. Oral Classes are also offered for students in French 2 proceeding to Honours in French. Special Oral Classes (elementary and advanced) are each year offered at the Summer School.

6. For the Sir Wilfrid Laurier Memorial Scholarship of \$80, awarded for proficiency in French conversation, see SCHOLARSHIPS.

7. For the French Government Medal, see MEDALS.

8. For information in regard to Scholarships in French see page 58.

9. For the Exchange Scholarship to France, see page 67.

COURSES OF INSTRUCTION

FRENCH 1. FIRST YEAR FRENCH.

Daudet, *Le Petit Chose* (Ginn).

V. Hugo, *Cosette* (Heath).

Pagnol, *Topaze* (Heath).

Contes Choisis de Maupassant (Doran).

New French Review Grammar (Crofts).

but for Extramural students:—

Duhamel and Minssen, *Primer of French Prose Composition* (Rivington's).

Monday, Wednesday, and Friday at 11.

Tuesday, Thursday, and Saturday at 9 (2 sections)

Professor Conacher, Dr. Shortliffe.

FRENCH 2. SECOND YEAR FRENCH.

Lesage, *Gil Blas* (American Book Co.).

Short Stories by French Romanticists (Harrap).

J. Romains, *Knock ou le Triomphe de la médecine* (Appleton-Century).

V. Hugo, *La Chute* (American Book Co.).

A first book of French Poetry (Nelson).

Moore and Slight, *An Intermediate French Course* (Part 3), (Blackie).

but for Extramural students:—

Duhamel and Minssen, *French Prose Composition for Middle Forms* (Rivington's).

The oral examination will be held during the term. Extramural students, in order to be credited with this course, must satisfy

the oral requirements at the University, either during the term or at the Summer School.

Monday, Wednesday, and Friday at 10.

Tuesday, Thursday, and Saturday at 10.

Professors Campbell and Tirol, Dr. Shortliffe.

FRENCH 3. THIRD YEAR PASS.

First Book of French Literature (Appleton-Century Co.).

Balzac, *Les Chouans* (Heath).

Loti, *Pêcheur d'Islande* (Holt).

Daudet, *L'Arlésienne* (Appleton-Century Co.).

Rostand, *Cyrano de Bergerac* (Holt).

Spagnoli, *Compendium of French Grammar Rules* (Prentice-Hall).

Monday, Wednesday, and Friday at 10.

Tuesday, Thursday, and Saturday at 10.

Professor Conacher, Dr. Shortliffe.

FRENCH 10. INTRODUCTION TO HONOURS.

Texts:

V. Hugo, *Hernani* (Thos. Nelson).

Chateaubriand, *René*.

Augier et Sandeau, *Le Gendre de M. Poirier* (A. B. C.).

Chinard, *Scènes de la vie française* (Ginn).

Oxford Book of French Verse (Oxford University Press).

Ritchie and Moore, *Manual of French Composition* (Cambridge University Press).

Mansion, *A Grammar of Present-Day French* (Harrap).

Le Petit Larousse illustré.

Monday, Wednesday, and Friday at 11.

Professor Campbell.

FRENCH 11. LANGUE FRANÇAISE (1850-1900).

Prerequisite, French 10.

Renan, *Souvenirs d'enfance et de jeunesse* (Nelson).

Zola, *Morceaux choisis* (A. Colin).

Loti, *Pages choisies* (Calmann-Lévy).

Pailleron, *Le Monde où l'on s'ennuie* (Heath).

Oxford Book of French Verse (Oxford University Press).

French Poetry of the 19th Century (Macmillan).

Mansion, *A Grammar of Present-Day French* (Harrap).

Mansion, *Exercises on French Syntax* (Harrap).

Monday, Wednesday, and Friday at 9.

Professor Tirol.

FRENCH 12. NINETEENTH CENTURY LITERATURE.

Hugo, *Notre Dame de Paris* (Prentice-Hall).

Balzac, *Eugénie Grandet* (Heath).

Flaubert, *Trois Contes* (Nelson).

Becque, *Les Corbeaux* (Heath).

France, *Le Crime de Sylvestre Bonnard* (Holt).

Schinz, *Nineteenth Century French Readings, Vol. I* (Holt).

Further assigned reading.

Tuesday, Thursday, and Saturday at 11.

Professor Conacher.

FRENCH 20. L'ANCIEN RÉGIME ET LA LITTÉRATURE.

Taine, *Ancien Régime* (American Book Company).

Voltaire, *Selections* (Nelson).

Rousseau, *Confessions* (Holt).

Further assigned reading.

Monday, Wednesday, and Friday at 11.

Professor Conacher.

FRENCH 21. LANGUE FRANÇAISE: ETUDES CONTEMPORAINES.

J. Romains, *Mort de Quelqu'un* (Figuère).

Alain Fournier, *Le Grand Meaulnes* (Emile Paul).

Duhamel, *Confession de Minuit* (Century Co.).

Proust, *Pages choisies* (N. R. F.).

Pagnol, *Marius, Fanny* (N. R. F.).

Schinz, *Nineteenth Century French Readings, Vol. II* (Holt).

Oxford Book of French Verse.

French Poetry of the Nineteenth Century (Macmillan).

Mansion, *A Grammar of Present-Day French* (Harrap).

Ritchie & Moore, *Manual of French Composition* (Cambridge University Press).

Special emphasis will be laid on syntax and composition. An extra tutorial class will be given in the second term.

Tuesday, Thursday, and Saturday at 11.

Professor Tirol.

FRENCH 22. SEVENTEENTH CENTURY (with special reference to the drama).

Corneille, *Cinna* (Appleton-Century).

Molière, *Le Malade Imaginaire* (Ginn).

Racine, *Bajazet*.

A thorough knowledge of *Hamlet* and *Julius Caesar* will be required.

Hours to be arranged.

Professor Campbell.

FRENCH 24. FRENCH CATHEDRALS.

Professor Campbell.

READING COURSES IN FRENCH:

R 1. Outlines of French Literature.

Text-books (those starred will be purchased by the student):

*Des Granges, *Histoire Illustrée de la Littérature Française* (Hatier).

La Chanson de Roland. Tristan et Iseult (in modern French versions).

Villon, and Rabelais (in English translations).

Corneille, *Horace*.

Molière, *Le Malade Imaginaire. Le Bourgeois Gentilhomme*.

Racine, *Andromaque*.

*La Fontaine, *Fables* (Cambridge University Press).

*Rousseau, *Selections* (Princeton University Press).

Beaumarchais, *Le Barbier de Séville*.

Chateaubriand, *Atala*.

Oxford Book of French Verse (Oxford University Press).

Professor Campbell.

R 2. The Novel of the Nineteenth Century—a Critical Study.

Prévost, *Manon Lescaut*.

Rousseau, *La Nouvelle Héloïse* (selections).

Chateaubriand, *Atala, René*.

de Staël, *Corinne*.

Victor Hugo, *Notre Dame de Paris, Les Misérables* (selections).

Stendhal, *La Chartreuse de Parme*.

Mérimée, *Colomba*.

Balzac, *Eugénie Grandet, Le Père Goriot, Le Curé de Tours, Les Paysans, Les Chouans*.

George Sand, *La Mare au Diable, Indiana*.

Gustave Flaubert, *Mme. Bovary*, and either *Salammbô* or *l'Education Sentimentale*.

de Goncourt, *Germinie Lacerteux*.

Emile Zola, two of: *L'Assommoir, Lourdes, La Débâcle, La Faute de l'Abbé Mouret*.

Anatole France, *Les Dieux ont soif*.

Pierre Loti, *Pêcheur d'Islande*.

Romain Rolland, *Jean Christophe* (selections).

Professor Conacher.

R 3. Le Roman régionaliste.

Balzac, *Les Paysans, Le Colonel Chabert*.

Raymonde Vincent, *Campagne*.

Guillaumin, *Le Livre de la Misère*.

P. Hamp, *Le Rail*.

Bazin, *La Terre Qui Meurt, Le Blé Qui Lève*.

Maupassant, *Contes*.

Hugo, *Quatre-Vingt-Treize*.

Loti, *Pêcheur d'Islande*, *Mon Frère Yves*, *Ramuntcho*.

Barbey d'Aurevilly, *Le Chevalier Des Touches*.

de Chateaubriant, *La Brière*.

J. de Pesquidoux, *Le livre de raison*.

Henri Pourrat, *Gaspard des Montagnes*.

Daudet, *Lettres de Mon Moulin*.

Mérimée, *Colomba*.

Génevoix, *Raboliot*.

H. Bordeaux, *Les Roquevillard*.

Erckmann-Chatrian, *L'Ami Fritz*.

George Sand, *Les Maîtres Sonneurs*.

Fort, *Ballades de l'Île de France*.

Zola, *Paris*.

R 4. *Introduction à la Littérature Canadienne*.
(may be substituted for R 3).

Professor Tirol.

Seminar courses: 24, 105, 110, 115, and 120. If only one of these is chosen it must be 110 or 115.

GRADUATE COURSES

Directed Special Studies to be determined upon consideration of the candidate's previous Course.

FRENCH 105. FRENCH CLASSICAL TRAGEDY.	Professor Campbell.
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FRENCH 110. OLD FRENCH.	Professor Campbell.
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FRENCH 115. MIDDLE FRENCH.	Professor Campbell.
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FRENCH 120. FRENCH-CANADIAN LITERATURE.	Professor Tirol.
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GERMAN LANGUAGE AND LITERATURE

PROFESSOR—Heinrich Henel, Ph.D.

ASSISTANT PROFESSOR—Hilda C. Laird, B.A., Ph.D.

REGULATIONS AND ANNOUNCEMENTS

1. German A may be counted towards a Pass degree or as an optional course towards an Honours degree. It may not be counted towards a Major or Minor in German. Students who enter the University without Matriculation in German and who wish to specialize in this subject may complete their programme of work in the usual time by taking German A during their first winter session and German 1 in the following summer. When this is done, however, no credit will be given for German A.

2. Students offering German as one of the three main subjects on a Pass Course should take German 1, 2 and 10 (or A, 1 and 2 if not matriculated in German). Additional courses in German may be taken by pass students with the consent of the Department.

3. For a Major in German, a student must take:

(a) Twelve courses for the Major, as follows:

Seven courses in German: 1, 2, 10, and four further Honours courses, with two supporting courses chosen from Latin 2, English 18, Philosophy 10 and either History 12 or History 24. Three Reading courses, R 1, R 2, R 3.

(b) Five courses for the Minor in Latin, French, Spanish, English, History, Economics, or Philosophy.

(c) Six general courses to complete the work for degree:

With French, Spanish, History or Economics as Minor: English 1, 2, Latin 1, Philosophy 1, one science, one free option.

With English as Minor: Latin 1, Philosophy 1, one science, three free options.

With Latin as Minor: English 1, 2, Philosophy 1, one science, two free options.

With Philosophy as Minor: English 1, 2, Latin 1, one science, two free options.

Note: Classical Literature 1, History 1, and English 3 are recommended as free options.

4. A Minor in German will normally consist of German 1, 2, 10 and two further Honours courses.

5. Students taking Honours in German are advised to read during the summer vacation as many as possible of the texts prescribed for the courses in which they intend to register during the following winter.

6. For information in regard to Scholarships in German, see page 58.

7. Students should provide themselves at once with a dictionary, at first James' or Cassell's English-German Dictionary, then an all German one, such as Hoffman's *Wörterbuch der deutschen Sprache*.

GERMAN A. PREPARATORY GERMAN.

This course is intended to meet the needs of students who enter the University with little or no knowledge of German. It may be taken by students who need it to complete their Matriculation, or by those who desire to pursue a course in which German textbooks or works of reference are prescribed or recommended. The requirements correspond in a general way to those for Pass Matriculation.

The work comprises drill on pronunciation, a study of the elements of grammar, the reading of easy literature, dictation, oral and written composition.

Text-books:—

Chiles and Wiehr, *First Book in German* (Ginn).

Alexis and Pfeiler, *In Deutschland*, Revised Edition (Midwest).

Koischwitz, *Die Bilderfibel* (Crofts).

Tuesday, Thursday, Saturday at 10, and one additional afternoon hour.

Professor Laird.

GERMAN 1. FIRST YEAR GERMAN.

The work includes the reading of texts, a more advanced study of grammar and syntax (including written and oral exercises), memorizing of poems, writing from dictation, translation at sight, composition and oral practice.

Text-books:—

Chiles, *German Composition and Conversation* (Ginn).

Appelt and Funke, *Modern German Prose* (Heath).

Dodge and Viereck, *Stimmen aus Deutschland* (Holt).

Leopold, *Ein Sommer in Deutschland* (Heath).

Wildenbruch, *Das edle Blut* (Crofts).

Collman, *Easy German Poetry* (Ginn).

Tuesday, Thursday, and Saturday at 9.

Professor Laird.

GERMAN 2. SECOND YEAR GERMAN.

The work consists of a more intensive study of modern literature, both prose and verse, oral and written composition based on this literature, and a more advanced study of grammar and syntax.

Extramural students, in order to be credited with this course, must satisfy the oral requirements.

The W. W. Near Scholarship of \$100 is awarded to the student standing highest in German 2 and German 10, provided they are taken concurrently. See page 58.

Text-books:—

Otto, *German Conversation Grammar* (Groos).

Geissendoerfer and Kurtz, *Deutsche Meisternovellen* (Prentice-Hall).

Kaufmann and Balduf, *Inductive Readings in German*, Book III (Chicago).

Schiller, *Wilhelm Tell* (Holt).

Extramural students are advised to purchase also the following (inexpensive) books:

Hastings, *Studies in German Words and their Uses* (Heath).

Leather, *Common Errors in German* (Dent).

Monday, Wednesday, and Friday at 10.

Professor Henel.

GERMAN 10. AN INTRODUCTION TO HONOURS IN GERMAN.

This course is open to both Pass and Honours students. It should be the first Honours course taken. Students taking a Major in German should register in courses 2 and 10 in the same year.

Text-books:

Otto, *German Conversation Grammar* (Groos).

Busse and Dexter, *Aus deutschen Blättern* (Crofts).

Hebbel, *Agnes Bernauer* (Oxford).

Schiller, *Jungfrau von Orleans* (Holt).

Sommerfeld, *Deutsche Lyrik 1880-1930* (Junker und Dünnhaupt).

Puckett, *Contemporary German Prose* (Holt).

Extramural students are advised to purchase also:

Purdie, *F. Hebbel: A Study of his Life and Works* (Oxford).

Harris, *The Nature of English Poetry* (Dent).

Hastings, *Studies in German Words and their Uses* (Heath).

Leather, *Common Errors in German* (Dent).

Monday, Wednesday, and Friday at 9.

Professors Henel and Laird.

GERMAN 12a. MEDIAEVAL GERMAN LITERATURE (800-1300).

Text-books:

Collitz, *Selections from Early German Literature* (American Book Co.).

Wolfskehl und von der Leyen, *Aelteste deutsche Dichtungen* (Insel 432).

Legerlotz, *Der arme Heinrich und König Rother* (Velhagen).
 Walther von der Vogelweide, *Gedichte und Sprüche* (Insel 105).
 Werner der Gärtner, *Meier Helmbrecht* (Insel 304).

Reference Books:

Robertson, *A History of German Literature*. Revised edition
 (Blackwood).

Golther, *Die deutsche Dichtung im Mittelalter* (Metzler).

Tuesday, Thursday, and Saturday at 9.

Professor Henel.

GERMAN 13b. GERMAN POETRY FROM OPITZ TO HOELDERLIN (1600-1800).

Open only to students majoring in German.

Text-books:

Echtermeyer, *Auswahl deutscher Gedichte*. Jubiläumsausgabe
 (Hallenser Waisenhaus).

Körner, *Wortkunst ohne Namen* (Academia Verlag).

Additional reading will be assigned during the course.

Tuesday, Thursday, and Saturday at 9.

Professor Henel.

GERMAN 14a. LESSING.

Open only to students majoring in German.

Text-books:

Lessing, *Minna von Barnhelm* (Holt).

Emilia Galotti (Heath).

Nathan der Weise (Ginn).

Laokton (Holt).

Hamburgische Dramaturgie, selections (Macmililan).

Additional reading will be prescribed during the course.

Hours to be arranged.

Professor Laird.

GERMAN 15b. GOETHE.

Text-books:

Goethe, *Dichtung und Wahrheit* (Holt).

Die Leiden des jungen Werthers (Oxford).

Götz von Berlichingen (Ginn).

Egmont (Holt).

Iphigenia auf Tauris (Holt).

Torquato Tasso (Heath).

Additional reading will be prescribed during the course.

Hours to be arranged.

Professor Laird.

The following courses are not offered in 1940-41, but will be given
 in 1941-42:

GERMAN 17a. SCHILLER.

GERMAN 18b. NINETEENTH CENTURY GERMAN DRAMA.

GERMAN 19a. GOETHE'S "FAUST."

GERMAN 20b. GERMAN ROMANTICISM.

READING COURSES IN GERMAN:

A general knowledge of the development of German literature during the periods covered by the courses R 2 and R 3 will be required, as well as first-hand knowledge of the text-books prescribed.

R 1. DEUTSCHE GESCHICHTE.

Text-books:

Pinnow, *Deutsche Geschichte* (Singer).

Treitschke, *Das Ordensland Preussen* (Insel 182).

Treitschke, *Der Befreiungskrieg* (Reclam 6824/25).

Brandenburg, *Die deutsche Revolution 1848* (Quelle und Meyer).

Ranke, *Deutsche Männer* (Insel 225).

Lamprecht, *Portraitgalerie aus der deutschen Geschichte* (Reclam 5181/82).

Steinhausen, *Kulturgeschichte der Deutschen im Mittelalter* (Quelle und Meyer).

Steinhausen, *Kulturgeschichte der Deutschen in der Neuzeit* (Quelle und Meyer).

Gooch, *Germany* (Benn).

Reference Works:

Henderson, *A Short History of Germany*.

Bryce, *The Holy Roman Empire*.

Reddaway, *Frederick the Great and the Rise of Prussia*.

Bithell, *Germany, a Companion to German Studies*.

Students are advised to consult also

Spruner-Menke, *Hand-Atlas für die Geschichte des Mittelalters und der neueren Zeit*.

Robertson and Bartholomew, *Historical Atlas of Modern Europe*.

R 2. DER REALISMUS IN DEUTSCHLAND.

Text-books:—

Deutsche Erzähler (Insel). Anthology. Read:

Droste-Hülshoff, *Die Judenbuche*.

Gottfried Keller, *Spiegel, das Kätzchen*.

Karl Immermann, *Der Oberhof*.

Theodor Storm, *Immensee* (Insel 246).

Paul Heyse, *L'Arrabiata*.

Otto Ludwig, *Zwischen Himmel und Erde* (Heath).

Wilhelm Raabe, *Die Chronik der Sperlingsgasse*.
 Gustav Freytag, *Die Brüder vom deutschen Haus*.
 Theodor Fontane, *L'Adultera* (Insel 170).
 C. F. Meyer, *Die Versuchung des Pescara*.

References:—

J. G. Robertson, *A History of German Literature*.
 Hugo Bieber, *Der Kampf um die Tradition*.
 R. M. Meyer, *Literatur des 19. Jahrhunderts*.

R 3. DIE LETZTEN FÜNFZIG JAHRE DEUTSCHER LITERATUR.

Text-books:—

Hermann Sudermann, *Frau Sorge*.
 Gerhart Hauptmann, *Florian Geyer* (Fischer).
 Gerhart Hauptmann, *Der Biberpelz*.
 Hugo von Hofmannsthal, *Der Tor und der Tod* (Insel 28).
 Thomas Mann, *Die Buddenbrooks* (Fischer).
 Hermann Hesse, *Unterm Rad* (Fischer).
 M. Sommerfeld, *George, Hofmannsthal, Rilke* (Norton).
 Georg Kaiser, *Die Bürger von Calais*.
 Leonhard Frank, *Die Ursache* (Fischer).
 Franz Werfel, *Der Abituriententag* (Zsolnay).
 Oswald Spengler, *Preussentum und Sozialismus* (C. H. Beck).

References:—

Jethro Bithell, *Modern German Literature, 1880-1938*.
 Paul Fechter, *Deutsche Dichtung der Gegenwart*.
 Hans Naumann, *Die deutsche Dichtung der Gegenwart*.
 Wolfgang Stammler, *Deutsche Literatur vom Naturalismus bis zur Gegenwart*.

GRADUATE COURSES

Lecture courses and Directed Special Studies will be arranged for by the Department as needed. The following lecture courses are obligatory:

GERMAN 101a. GESCHICHTE DER DEUTSCHEN SPRACHE.

Text-books:

Kirk, *Introduction to the Historical Study of New High German* (Manchester University Press).
 Braune, *Abriss der althochdeutschen Grammatik* (Niemeyer).

GERMAN 102b. MITTELHOCHDEUTSCH.

Text-book:

Bachmann, *Mittelhochdeutsches Lesebuch* (Beer).

HEBREW

PROFESSOR—Rev. H. A. Kent, M.A., D.D., F.R.S.A.

LECTURER—Rev. S. MacLean Gilmour, B.D., Ph.D.

REGULATIONS AND ANNOUNCEMENTS

Students proceeding to Theology may, with the permission of the Board of Studies, substitute Hebrew 1 for a course in Latin.

COURSES OF INSTRUCTION

HEBREW 1.

The aim of this class is to enable students to read any of the narrative parts of the Hebrew Scripture. The Christmas term is devoted entirely to thorough study and practice of grammar and exercises. After the Christmas vacation parts of Genesis and Samuel, or other books, will be read, in addition to the work in grammar and composition.

Text-books: Davidson, *Hebrew Grammar* (20th or later editions), pages 1-113. Kittel, *Biblia Hebraica*, or *Hebrew Bible*, issued by B. and F. Bible Society.

Lexicons, Brown-Driver-Briggs, or *Fonolexika* Langenscheidt.

Monday, Wednesday, and Friday at 8.

HEBREW 2.

This class aims at more advanced work in the Hebrew language than that attempted in course 1. The prophetic and poetic literature of the Old Testament will be studied and lectures given on Hebrew Syntax and the principles of Textual Criticism of the Old Testament. Students will be practised regularly in translating English into Hebrew, both *viva voce* and in written exercises.

Text-books: Davidson, *Hebrew Grammar*, pages 113-236, *Hebrew Syntax*. *Hebrew Bible* and *Lexicon* as in course 1.

Tuesday, Thursday, and Saturday at 8.

SPANISH AND ITALIAN LANGUAGES AND LITERATURE

PROFESSOR—J. H. Brovedani, D-ès-L.

LECTURER—A. B. Minor, M.A.

SPANISH

REGULATIONS AND ANNOUNCEMENTS

1. Spanish A may be counted towards a Pass degree or as an optional course on Honours Courses in subjects other than Spanish. It may not be counted towards a Major or Minor in Spanish. Students who enter the University without Matriculation in Spanish and who wish to specialize in this subject may, however, complete their programme of work in the usual time by taking Spanish A during their first winter session and Spanish 1 in the following summer.

2. Spanish A is a prerequisite to Spanish 1 and Spanish 1 is a prerequisite to all other courses.

3. Students making Spanish one of the three main subjects under the Pass Course will take A, 1, 2, or 6 (with Spanish Matriculation 1, 2, and 6 or 10).

4. For Honours in Spanish, a student must take:

(a) Twelve courses for Major as follows:

Seven courses, Spanish 1, 2, 10, 22, 24, 29 or 30, Italian 1, with two supporting courses to be selected from the following four: Latin 2, French 2, an Honours course in English and History 24.

Three Reading courses in Spanish, R 1, R 2, R 3.

(b) Five courses for Minor in French, German, English, or Latin.

(c) Six compulsory general courses to complete the work for degree: With French as Minor: English 1, 2, Latin 1, Philosophy 1, one science, one free option.

With German as Minor: English 1, 2, Latin 1, Philosophy 1, one science, one free option.

With English as Minor: Latin 1, French 1 or German 1 or Greek 1, Philosophy 1, one science, two free options.

With Latin as Minor: English 1, 2, French 1 or German 1 or Greek 1, Philosophy 1, one science, one free option.

5. On the Course for Honours the marks in Italian will be averaged with those of the advanced courses in Spanish.

6. For information in regard to Scholarships in Spanish see p. 59.

COURSES OF INSTRUCTION

SPANISH A. ELEMENTARY SPANISH.

Grammar, Composition, Translation, Conversation and Study of

Prescribed texts:

Hugo's *Spanish System* (Tech. Supp.).

Spanish Review Notes (Tech. Supp.).

Hugo's *Spanish Verbs*.

Castillo and Sparkman, *Graded Spanish Readers* (Heath).

Robles, *Tertulias Españolas* (Crofts).

Castillo and Sparkman, *Primeras Lecturas Españolas* (Chicago).

Quinteros, *La flor de la vida* (Heath).

Monday, Wednesday, and Friday at 11.

Tuesday, Thursday, and Saturday at 9.

Professor Brovedani, Mr. Minor.

SPANISH 1. INTERMEDIATE SPANISH.

Prerequisite—Spanish Matriculation, or Spanish A.

Grammar. Composition, Translation, Reading and oral exercises.

The following prescribed texts:

Crawford, *Temas españoles* (Holt).

Hugo's *Spanish Verbs*.

Cano and Saenz, *Easy Spanish Plays* (Heath).

Barr and Russell, *Selections from Valdés* (Am. Book).

Ugarte and Rubio, *De la noche a la mañana* (Norton).

Ford, *Spanish Composition* (Heath); for extramural students only.

Baroja, *Inquietudes de Andía* (Heath).

Cano, *La Vida de un Pícaro* (Macmillan).

Hills, *Spanish Tales* (Holt).

Monday, Wednesday, and Friday at 9.

Professor Brovedani, Mr. Minor.

SPANISH 2. ADVANCED SPANISH.

Prescribed texts:

Buceta and Cornish, *Tres Comedias Contemporáneas* (Holt).

Martínez de la Rosa, *La Conjuración de Venecia* (Sanborn) second term.

Quintero, *Doña Clarines* (Heath), second term.

Martínez Sierra, *Canción de Cuna* (Heath).

Valdés, *José* (Heath).

Remy, *Spanish Composition* (Heath).

Wast, *La Casa de los Cuervos* (Macmillan).

Extramural students in order to be credited with this course must satisfy the oral requirements.

Tuesday, Thursday, and Saturday at 10.

Professor Brovedani.

SPANISH 6. COMMERCIAL SPANISH; READING OF MODERN SPANISH PROSE. Prerequisite, Spanish 1.

Prescribed texts:

Valdés, *Sinfonía Pastoral* (Am. Book).

Azorín, *Las confesiones de un pequeño filósofo* (Heath).

Camba, *La Rana Viajera* (Heath).

Baroja, *Zalacaín el aventurero* (Black).

Davis, *Lecturas Comerciales* (Black).

Carnes, *Manual de Correspondencia Comercial Española* (Holt).

Whittem and Andrade, *Spanish Commercial Correspondence* (Heath); for extramural students only.

Tuesday, Thursday, and Saturday at 10.

Mr. Minor.

SPANISH 10. MODERN AUTHORS.

Alarcón, *El Sombrero de tres picos* (Holt).

Quintero, *Puebla de las mujeres* (Century).

Así se escribe la historia (Crofts)

Ibáñez, *La Barraca* (Holt).

valdés, *La Hermana San Sulpicio* (Ginn).

Sierra, *Sol de la tarde* (Heath).

Espronceda, *Estudiante de Salamanca* (Ginn).

Valera, *Pepita Jiménez* (Heath).

Barja, *Libros Modernos* (Campbell).

Tuesday, Thursday, and Saturday at 9.

Professor Brovedani, Mr. Minor.

SPANISH 22. DRAMA OF THE GOLDEN AGE.

Lope, Tirso, Alarcón, Calderón.

Offered in 1940-41.

Monday, Wednesday, and Friday at 10.

Professor Brovedani, Mr. Minor.

SPANISH 24. CERVANTES Y LA NOVELA DE COSTUMBRES.

(a) Cervantes:

Schevill, *Cervantes* (Ginn).

Cervantes, *Don Quijote* (Clásicos Castellanos).

(b) Novela de Costumbres.

Not offered in 1940-41.

Monday, Wednesday, and Friday at 10.

Professor Brovedani, Mr. Minor.

SPANISH 29. ADVANCED COMPOSITION AND CONVERSATION.

Ramsey, *A Text-book of Modern Spanish* (Holt).

Navarro Tomás, *Pronunciación Española* (Centro).

These books will be used in connection with the study of contemporary literature.

Offered in 1940-41; alternate years only.

Reserved for Honours students.

Monday, Wednesday, and Friday at 2.

Professor Brovedani.

SPANISH 30. RENAISSANCE AND THE ROMANTIC PERIOD. THE PICARESQUE NOVEL.

Not offered in 1940-41.

Reserved for Honours students.

Monday, Wednesday, and Friday at 2.

Professor Brovedani.

READING COURSES IN SPANISH.

R 1.

Armando Palacio Valdés, *Marta y María; La alegría del capitán Ribot*.

Juan Valera, *Pepita Jiménez*.

Ramón del Valle-Inclán, *Sonata de otoño*.

Ramón de Campoamor, *Poesías*.

Gustavo Adolfo Bécquer, *Desde mi celda: Rimas*.

Rubén Darío, *Selections from his Prose and Poetry*.

Jacinto Benavente, *Los intereses creados; La Malquerida*.

Álvarez Quinteros, *El amor que pasa*.

Salcedo, *Historia de la literatura española*, chs. 1-6, Vol. II.

R 2.

Fernán Caballero, *La Gaviota* or *La familia de Alvareda*.

Emilia Pardo Bazán, *Los pazos de Ulloa* or *La madre naturaleza*.

Juan Valera, *Doña Luz* or *El comendador Mendoza*.

Benito Pérez Galdós, *Fortunata y Jacinta*.

Antonio de Trueba, *Cuentos*.

Luis Coloma, *Pequeñeces*.

Vicente Blasco Ibáñez, *La catedral*.

Pío Baroja, *Camino de perfección*.

Miguel de Unamuno, *Vida de don Quijote y Sancho* or *Del sentimiento trágico de la vida*.

Gaspar Núñez de Arce, *Un idilio. El haz de leña*.

Manuel Tamayo y Baus, *Lo positivo* or *Un drama Nuevo*.

Adelardo López de Ayala, *El tanto por ciento* or *Consuelo*.

César Barja, *Autores Modernos*.

R 3.

Santa Teresa de Jesús, *Libro de su vida*.Luis de León, *La perfecta casada*. *Poesías*.Guillén de Castro, *Las Mocedades del Cid*.Augustín Moreto y Cabaña, *El desdén con el desdén* or
El valiente Justiciero.Luis Vélez de Guevara, *Más pesa el rey que la sangre*; *Diablo cojuelo*.Francisco de Rojas Zorrilla, *Del rey abajo, Ninguno*.Francisco Gómez de Quevedo, *Los sueños*.Quevedo, Meléndez Valdés, Quintana, Herrera, Góngora, and
Galego in the Oxford Book of Spanish Verse.

Selections from Samaniego, Iriarte, Jovellanos.

José Cadalso, *Cartas marruecas*. *Noches Lúgubres*.Ramón de la Cruz, *Las tertulias de Madrid*, *El Prado por la noche*, *La Pradera de San Isidro*, *La Plaza Mayor por Navidad*.Leandro Fernández de Moratín, *El sí de las niñas* or *La comedia nueva*.José Zorrilla, *Don Juan Tenorio*.Padre Isla, *Gil Blas* or *Fray Gerundio*.José María de Pereda, *Sotileza*, *Peñas arriba*.Romera-Navarro, *Historia de la literatura española*.

GRADUATE COURSES

Lecture courses and Directed Special Studies will be offered as needed.

ITALIAN

COURSES OF INSTRUCTION

ITALIAN 1. ELEMENTARY ITALIAN.

Alternate years only. Not offered in 1940-41.

Monday, Wednesday, and Friday at 9.

Reserved for Honours Spanish students.

ART

RESIDENT ARTIST—André Biéler.

Art 1 and Art 2 will be offered in alternate years. A student will be permitted to offer one of these courses towards a degree.

ART 1. (Offered in 1940-41, and in alternate years.)

Mediaeval, Renaissance and Modern.

Beginning with the early Christian period, the course will show how Romanesque architecture prepares the way for the Gothic Cathedral. The course will deal with the painting of Giotto and the Sienese school, the Renaissance in Florence, Rome and Venice, and, successively, the painting in Spain, Flanders, Holland, Germany, England and France, finishing with the creative expression of our own day.

ART 2. (Not offered in 1940-41.)

Ancient, Oriental and North American Art.

Starting with the childhood of Art in prehistoric times the course will show the development of art in Egypt, the spirit of Greek art and its diffusion in Roman times.

The Arts of China, Persia and Japan, with their religious and philosophical aspects will be studied. The contribution of the nineteenth century Japanese art to the French Impressionist school will be noted. Lectures on American Aboriginal Art will be illustrated from examples in the University collection. Painting of North American countries will be studied from travelling exhibitions when available.

STUDIO:

In conjunction with the lectures in Fine Art, there will be a Studio period, where the students will draw from the antique, still life, and the living model. Reproductions of drawings by the Masters will be studied, with particular attention to line and indication of form; colour reproductions of great paintings of the French and Italian Renaissance analyzed for their linear and colour composition; Japanese prints shown and copied to understand the significance of the line and flat tones of Oriental Art.

Pictures of modern masters will be shown from time to time, giving the student an opportunity of acquainting himself with the modern movement and realizing its significance in contemporary life.

Texts:

Art through the Ages, by Helen Gardner.

Lecture period—*Monday and Thursday*, 4-5.

Studio period—*Tuesday*, 2-4, or *Wednesday*, 2-4.

MUSIC

RESIDENT MUSICIAN—F. L. Harrison, Mus.D. (Trinity College, Dublin).

The course in Music may be offered as one optional course towards the degree of Pass B.A. The same allowance will be permitted on an Honours Course when the Department giving the Major subject so recommends.

The aim of the course is to put the student's appreciation and experience of music on a historical basis, to study successive periods in its history, and to make the student familiar with the characteristics of the music of each period. The tone-colour and technical features of instruments are studied, and a detailed analysis of a number of symphonies from Haydn to Sibelius is made from the points of view of form, orchestration, and general features of style and musical idiom, with constant use of the scores.

The course will consist of an elementary survey of the main outlines of the history of music. It will deal in a general way with early church music, the sixteenth century madrigal, and the development of the various forms of instrumental music (suite, sonata, symphony, etc.) through the seventeenth, eighteenth and nineteenth centuries.

The tonal qualities of orchestral instruments will be studied, and how to acquire sufficient familiarity with musical notation to follow an orchestral score, and distinguish its tone-colours.

The lectures are held in the Music Room (111) in the Douglas Library, and are illustrated throughout by the use of the Carnegie library of records and orchestral scores and by the pianoforte.

Indications are given in the course of the lectures of the close connection between music and poetry, folklore, religion, social history, the dance, and drama.

Prescribed texts:

The Structure of Music, R. O. Morris (Oxford University Press).

A History of Music, T. M. Finney (Harcourt, Brace and Co.).

Instructions for Score-reading, Hans Gal (Vienna Philharmonic Edition).

Monday at 5, Wednesday, and Friday at 4.30.

Dr. F. L. Harrison.

HISTORY

JAMES DOUGLAS PROFESSOR OF CANADIAN AND COLONIAL HISTORY—

Reginald G. Trotter, M.A., Ph.D., D.C.L., F.R.Hist.S.

PROFESSOR—A. E. Prince, M.A., B.Litt.

ASSISTANT PROFESSOR—W. E. C. Harrison, M.A.

ASSISTANT PROFESSOR—Gerald S. Graham, M.A., Ph.D., F.R.Hist.S.

SIR JAMES AIKINS FELLOW—W. H. Agnew, B.A.

WESTERN ONTARIO GRADUATES FELLOW—M. B. Parnall, B.A.

LEONARD FELLOW—Anne Sedgewick, B.A.

REGULATIONS AND ANNOUNCEMENTS

1. In all courses in history a knowledge of historical geography is required. In addition to the atlases prescribed in individual courses the following is recommended as the most convenient general historical atlas now in print:

Ramsay Muir, *Philips' New Historical Atlas for Students*
(Clarke, Irwin and Co., Toronto).

2. Students selecting history as one of the special subjects for a pass degree will take History 1 (unless credited with Modern History as an Honour Matriculation subject), History 3 and History 5. Students obtaining not less than B grade in History 3 may substitute for History 5 any one of History 12, 13, 16, 17, 18a with 19b, 14a or 15a with 11b, Greek and Roman History 4.

3. Students presenting Upper School History (credited in lieu of History 1) with a grade not less than B may, in their first year, take concurrently with History 3 either History 12 or History 13.

4. For information in regard to Scholarships in History see page 58.

5. Honours in History may be taken either in British and European History or in British and Colonial History.

A. *British and European History.*

(a) Twelve courses for Major as follows:

History 1, 3, 12, 13, 17, 18a, 19b, 16 or 24, and 27 or 14a (or 15a) with 11b, with one supporting course, Greek and Roman History 4 or Latin 2.

Three Reading courses chosen from R 1, R 2, R 3, R 4, R 5, R 6, R 7.

Subject to the approval of the Department one Reading course may be selected from those offered in the Minor subject.

(b) Five courses for Minor in English, Greek and Roman History, French, Philosophy, or Political and Economic Science.

(A candidate for Specialist standing in History must take a Major in History and a Minor in Political and Economic Science made up of Economics 4, Politics 2, Economics 10, and two further courses in Political and Economic Science. Geology 1 must be taken as the required science. History R 5, Geographical Discovery and Exploration, should be included among the Reading Courses taken. A candidate for Specialist standing in English must take a Minor in Social History made up as follows: History 1, 3, 16, and two of 17, 18a and 19b, 24, 28a and 29b.)

- (c) Six compulsory general courses to complete the work for degree: With English as Minor: Latin 1, French 1 or German 1 or Greek 1, Philosophy 1, one science, two free options. (Greek and Roman History 52 or 53 is recommended.)

With Economics and Politics as Minor or with Greek and Roman History as Minor: English 1, 2; Latin 1 or Mathematics 1; Philosophy 1; French 1 or Greek 1 or German 1; one science. With French as Minor: English 1, 2, Latin 1, Philosophy 1, one science, one free option.

With Philosophy as Minor: English 1, 2, Latin 1 or Mathematics 1, French 1 or German 1 or Greek 1, one science, one free option.

B. *British and Colonial History.*

- (a) Twelve courses for Major as follows:

History 1, 3, 12, 13, 17, 18a, 19b, 20a, 21b, 28a, 29b with one supporting course, Greek and Roman History 4 or Latin 2.

Three Reading courses in History chosen from R 1, R 2, R 3, R 4, R 5, R 6, R 7. Subject to the approval of the Department one Reading course may be selected from those offered in the Minor subject.

- (b) Five courses for Minor—as stated in A (b).

- (c) Six compulsory general courses—as stated in A (c).

HISTORY 1. THE EVOLUTION OF MODERN EUROPE.

An introductory study of the historical background of contemporary Europe.

H. A. L. Fisher, *History of Europe* (Longmans).

J. F. Horrabin, *An Atlas of European History* (Ryerson).

Other reading to be assigned.

Extramural students will be required to buy additional books.

Tuesday, Thursday, and Saturday at 11.

Professor Harrison.

HISTORY 3. CANADIAN HISTORY.

Canadian history in its relation to the expansion of European civilization into the western hemisphere.

R. S. Cotterill, *A Short History of the Americas* (Prentice-Hall).

J. B. Brebner, *The Explorers of North America 1492-1806* (Macmillan).

Carl Wittke, *A History of Canada* (McClelland and Stewart).
Other reading to be assigned.

Extramural students will be required to buy additional books.
Tuesday, Thursday, and Saturday at 8. Professor Trotter.

HISTORY 5. ENGLAND FROM THE MIDDLE AGES TO THE PRESENT DAY.

Emphasis will be given to the evolution of parliamentary institutions and the development of British external policy.

E. H. Carter and R. A. F. Mears, *A History of Britain* (1485 to the present day) (Oxford University Press).

Other reading to be assigned.

Monday, Wednesday, and Friday at 10. Professor Graham.

HISTORY 11b. UNITED STATES HISTORY.

A survey course covering the national period.

H. C. Hockett and A. M. Schlesinger, *Political and Social Growth of the United States* (Revised ed. 1933. Macmillan).

A. B. Hart and H. E. Bolton, *American History Atlas* (Denoyer-Geppert, Chicago).

Other reading to be assigned.

Monday, Wednesday, and Friday at 11. Dr. Graham.

HISTORY 12. MEDIAEVAL EUROPEAN HISTORY, 400-1453.

A study of the evolution of Western civilization during this period.

Carl Stephenson, *Mediaeval History* (Harper).

R. C. D. Laffan, *Select Documents of European History*, Vol. I (Holt).

Other reading to be assigned.

Monday, Wednesday, and Friday at 9. Professor Prince.

HISTORY 13. THE DEVELOPMENT OF BRITISH COLONIAL POLICY.

J. A. Williamson, *The British Empire and Commonwealth* (Macmillan).

R. G. Trotter, *The British Empire-Commonwealth* (Macmillan).

A. B. Keith, *Speeches and Documents on the British Dominions, 1918-1931* ("The World's Classics", Oxford University Press).

Students are advised also to purchase for their own use:

J. F. Horrabin, *An Atlas of Empire* (Ryerson).

Other reading to be assigned.

Monday, Wednesday, and Friday at 10. Professor Trotter.

HISTORY 14a. THE FAR EAST.

(Offered in 1940-41 but not in 1941-42).

A study of the modern history of China and Japan, emphasizing the relations of other Powers with those countries.

Payson J. Treat, *The Far East* (Harpers).

Other reading to be assigned.

Monday, Wednesday, and Friday at 11. Professor Prince.

HISTORY 15a. THE NEAR EAST.

(Offered in 1941-42 but not in 1940-41).

A study in the relations between occidental and oriental peoples of that region. The course stresses the rise and fall of the Ottoman Empire, the contacts of Christianity and Islam, international rivalries, recent Balkan troubles, the rebirth of Turkey, Arabia, Palestine, etc.

J. A. R. Marriott, *The Eastern Question* (Oxford University Press).

Other reading to be assigned.

Monday, Wednesday, and Friday at 11. Professor Prince.

HISTORY 16. MEDIAEVAL BRITISH HISTORY.

This course traces British progress down to 1485, emphasizing the constitutional and cultural aspects of the history.

W. E. Lunt, *History of England* (Harper).

G. B. Adams, *Constitutional History of England* (Holt),

R. T. Davies, *Documents Illustrating the History of Civilization in Medieval England* (Saunders).

Other reading to be assigned.

Tuesday, Thursday, and Saturday at 9. Professor Prince.

HISTORY 17. MODERN ENGLAND.

The course will attempt to explain some of the main features of English politics and society since the eighteenth century.

W. T. Selley, *England in the Eighteenth Century* (Macmillan).

Gilbert Slater, *The Growth of Modern England* (Macmillan).

Sir John Marriott, *Modern England, 1885-1932* (Saunders).

G. B. Adams, *Constitutional History of England* (Holt).

Other reading to be assigned.

Monday, Wednesday, and Friday at 9. Professor Harrison.

HISTORY 18a. ENGLAND UNDER THE TUDORS, 1485-1603.

C. H. Williams, *The Tudor Despotism* (Nelson).J. B. Black, *The Reign of Queen Elizabeth* (Oxford University Press).Katherine Garvin, *The Great Tudors* (Saunders).G. B. Adams, *Constitutional History of England* (Holt).

Other reading to be assigned.

Tuesday, Thursday, and Saturday at 9. Professor Harrison.

HISTORY 19b. ENGLAND UNDER THE STUARTS, 1603-1714.

Godfrey Davies, *The Early Stuarts* (Oxford University Press).G. N. Clark, *The Later Stuarts* (Oxford University Press).G. B. Adams, *Constitutional History of England* (Holt).

Other reading to be assigned.

Tuesday, Thursday, and Saturday at 9. Professor Trotter.

HISTORY 20a. HISTORY OF NEW FRANCE.

R. G. Trotter, *Canadian History, A Syllabus and Guide to Reading* (new and enlarged edition, Macmillan).

Readings to be assigned.

Tuesday, Thursday, and Saturday at 10.

Professor Graham.

HISTORY 21b. BRITISH RULE IN CANADA, 1760-1818.

R. G. Trotter, *Canadian History, A Syllabus and Guide to Reading* (new and enlarged edition, Macmillan).

Readings to be assigned.

Tuesday, Thursday, and Saturday at 10.

Professor Graham.

HISTORY 24. THE RENAISSANCE.

The emphasis in lectures and discussions will be on the cultural and religious developments of the period.

Henry S. Lucas, *The Renaissance and the Reformation*

(Harper).

F. Schevill, *First Century of Italian Humanism* (Crofts).

Other reading to be assigned.

Monday and Wednesday at 1.30. Professor Prince.

HISTORY 27. RECENT EUROPE.

An historical approach to the problems of contemporary Europe.

E. Lipson, *Europe in the Nineteenth and Twentieth Centuries* (Macmillan).E. H. Carr, *The Twenty Years' Crisis, 1919-1939: An Introduction to the Study of International Relations* (Macmillan).G. M. Gathorne-Hardy, *A Short History of International Affairs, 1920-1938* (Oxford University Press).

A Study Group, Royal Institute of International Affairs:
Nationalism: Its Nature and Consequences (Oxford University Press).

Other reading to be assigned.

Monday, Wednesday, and Friday at 11. Professor Harrison.

HISTORY 28a. CANADIAN HISTORY, 1818-1854.

and

HISTORY 29b. CANADIAN HISTORY SINCE 1854.

History 28a and 29b are conducted as a seminar combining discussion of historical methods and bibliography, and problems of interpretation in Canadian history, with reports by students on selected topics.

R. G. Trotter, *Canadian History, A Syllabus and Guide to Reading* (new and enlarged edition, Macmillan).

Readings on the period will be assigned, and other material in the Queen's collection of Canadiana will be used in connection with the preparation of reports.

Tuesday and Thursday at 1. Professor Trotter.

READING COURSES IN HISTORY:

R 1. A Mediæval Mosaic.

G. G. Coulton, *The Mediaeval Scene* (Cambridge U. P.).

E. Power, *Mediaeval People*. (Penguin).

H. Adams, *Mont-Saint-Michel and Chartres* (Houghton, Mifflin).

P. Sabatier, *St. Francis* (Hodder and Stoughton).

J. Huizinga, *Waning of the Middle Ages* (Arnold).

H. Pirenne, *Mediaeval Cities* (Princeton U. P.).

C. H. Haskins, *Rise of Universities* (Holt).

R 2. Some English Political Ideas from Locke to Bentham.

H. J. Laski, *Political Thought from Locke to Bentham* (Home University Library).

John Locke, *Treatise of Civil Government*, ed. by C. L. Sherman (Appleton-Century).

Bolingbroke, *The Idea of a Patriot King*, with introduction by A. Hassall (Oxford University Press).

Burke, *Thoughts on the Causes of the Present Discontents* (Macmillan); *American Speeches and Letters* (Dent: Everyman's Library); *Reflections on the French Revolution* (Dent: Everyman's Library).

R 3. British Foreign Policy to 1914.

R. W. Seton-Watson, *Britain in Europe, 1789-1914: a survey of foreign policy* (Macmillan).

Sir John Tilley and Stephen Gaselee, *The Foreign Office* (Putnam).

Harold Nicolson, *Diplomacy* (Nelson).

A. F. Pribram, *England and the International Policy of the European Great Powers, 1871-1914* (Oxford University Press).

G. M. Trevelyan, *Grey of Falloden* (Macmillan).

Viscount Grey, *Twenty-five Years* (Hodder and Stoughton).

Harold Nicolson, *Sir Arthur Nicolson: First Lord Carnock* (Macmillan).

Viscount Haldane, *Autobiography* (Hodder and Stoughton).

Winston Churchill, *The World Crisis, 1911-1914*, Volume I (Scribners).

R 4. Anglo-American and Canadian-American Relations.

R. B. Mowat, *The Diplomatic Relations of Great Britain and the United States* (Longmans).

L. M. Gelber, *The Rise of Anglo-American Friendship: A Study in World Politics, 1898-1906* (Oxford University Press).

H. L. Keenleyside, *Canada and the United States* (Crofts).

W. B. Munro, *American Influences on Canadian Government* (Macmillan).

Sir Robert Falconer, *The United States as a Neighbour* (Cambridge University Press).

Conference on Canadian-American Affairs, 1935: Proceedings, edited by W. W. McLaren, A. B. Corey, R. G. Trotter (Ginn). (The section on "The Historical Background of Present Problems and Attitudes".)

Conference on Canadian American Affairs, 1937: Proceedings, edited by R. G. Trotter, A. B. Corey, W. W. McLaren (Ginn).

Conference on Canadian-American Affairs, 1939: Proceedings, edited by A. B. Corey, R. G. Trotter, W. W. McLaren (Ginn).

P. E. Corbett, *The Settlement of Canadian-American Disputes* (Ryerson).

B. K. Sandwell, *Canada and United States Neutrality* (Oxford Pamphlets on World Affairs).

R 5. Geographical Discovery and Exploration.

J. E. Gillespie, *A History of Geographical Discovery, 1400-1800* (Clarke, Irwin).

J. Holland Rose, *Man and the Sea: Stages in Maritime and Human Progress* (Heffer & Sons, Cambridge, England).

A. P. Newton, editor, *The Great Age of Discovery* (University of London Press).

Hakluyt, *Voyages of the Elizabethan Seamen, Select Narratives from the "Principal Navigations" of Hakluyt*, edited

by E. J. Payne and C. R. Beazley (Oxford University Press).

Sir H. H. Johnston, *The Opening up of Africa* (Home University Library).

R 6. History and Historiography.

Encyclopaedia of the Social Sciences, Vol. VII, pp. 357-389: "History and Historiography".

Allan Nevins, *The Gateway to History* (Heath).

E. R. A. Seligman, *The Economic Interpretation of History* (Columbia University Press).

Shailer Mathews, *The Spiritual Interpretation of History* (Harvard University Press).

Lucy M. Salmon, *Historical Material* (Oxford University Press).

G. P. Gooch, *History and Historians in the Nineteenth Century* (Longmans), (material on the following historians: Ranke, Treitschke, Michelet, Guizot, Tocqueville, Taine, Aulard, Hallam, Lingard, Macaulay, Carlyle, Froude, Stubbs, Freeman, Green, Gardiner, Lecky, Seeley, Acton, Bancroft (George), Prescott, Parkman, Mahan, Burckhardt.)

Students electing R 6 are advised to read it in their final year.

R 7. The History of Political Ideas.

Phyllis Doyle, *A History of Political Thought* (Cape).

R. H. S. Crossman, *Government and the Governed* (McClelland).

W. D. Ross (ed.), *Aristotle*, Chapter VIII (Methuen).

A. D. Lindsay, *The Republic of Plato* (Dent).

A. P. D'Entrevès, *The Mediaeval Contribution to Political Thought* (Oxford University Press).

Alfred Zimmern (ed.), *Modern Political Doctrines* (Oxford).

A Study Group, Royal Institute of International Affairs, *Nationalism: Its History and Consequences* (Oxford University Press).

Michael Oakeshott, *The Social and Political Doctrines of Contemporary Europe* (Macmillan).

GRADUATE COURSES

Each student's programme of graduate study is drawn up in consultation with the Department and adapted to the student's special needs and interests. Directed Special Studies may be pursued and a thesis written in many aspects of Canadian History and in some phases of English and European History. Such courses in Canadian History as shall be offered at the Queen's Summer School of History at the Public Archives at Ottawa may with advantage be taken there instead of at the University in the winter.

MENTAL AND MORAL PHILOSOPHY

THE JOHN AND ELLA G. CHARLTON PROFESSOR OF PHILOSOPHY—
George Humphrey, M.A., Ph.D.

ASSOCIATE PROFESSOR—Gregory Vlastos, M.A., Ph.D.

LECTURER—H. Martyn Estall, M.A., Ph.D.

LECTURER IN EXPERIMENTAL PSYCHOLOGY—Donald Olding Hebb,
M.A., Ph.D.

REGULATIONS AND ANNOUNCEMENTS

1. Students choosing Philosophy as one of their main subjects on a Pass Course will take courses 1, 2, and one of 3, 4, 10, 11, 12 or 24a and 26b.

2. Students taking an Honours Course in Philosophy, who do not take courses 1 and 2 in the same year, will be permitted to combine one of these courses with appropriate Honours classes.

3. For information in regard to Scholarships in Philosophy see page 59.

For Honours in Philosophy a student must take:

(a) Twelve courses for Major as follows:

Nine courses in Philosophy, viz.: (i) Philosophy 1, 2, 10, 11, 14a, 19b, 18, 22, 29, 31 or one supporting course, Politics 2 or French 2; (ii) Philosophy 1, 2, 10, 12, 15, 22, 24a, 26b, 30, and one supporting course that will ordinarily be Biology 1, or French 2, or Latin 2.

Three Reading courses, R 1, R 2, R 3, or R 4, R 5, R 6.

(b) Five courses for Minor in History, Economics, English, Biology, Classics or Mathematics.

(c) Six compulsory general courses to complete the work for degree:

With History as Minor: English 1, 2, French 1 or German 1 or Greek 1, Latin 1 or Mathematics 1, one free option, one science. (Biology 1 is recommended if not taken).

With Economics as Minor: English 1, 2, French 1 or German 1 or Greek 1, Latin 1 or Mathematics 1, one free option, one science. (Biology 1 is recommended).

With English as Minor: Latin 1, French 1, one science, three free options.

With Biology as Minor: English 1, 2, French 1 or German 1 or Greek 1, Mathematics 1, one free option, one science. (Chemistry 1 is recommended).

With Latin as Minor: English 1, 2, French 1 or German 1 or Greek 1, two free options, one science. (Biology 1 is recommended).

With Mathematics as Minor: English 1, 2, French 1 or German 1 or Greek 1, one science, two free options. (Politics 2 is recommended.)

PHILOSOPHY 1. INTRODUCTION TO PHILOSOPHY.

The aim of the course is to introduce the student to the method of critical thinking. Some of the main problems in logic and ethics will be indicated, and elementary answers will be considered.

Text-books:

Burtt, *Principles and Problems of Right Thinking* (Harper).
 Holmes, *Exercises in Reasoning* (Appleton-Century).
 Dewey, *Human Nature and Conduct* (Modern Library).
 Wheelwright, *A Critical Introduction to Ethics* (Doubleday, Doran).

Monday, Wednesday, and Friday at 9.
Sections to be arranged.

Professor Vlastos, Dr. Estall.

PHILOSOPHY 2. PSYCHOLOGY.

An elementary survey of mental life.

Text-books:

Murphy, *Briefer General Psychology* (Harpers).
 Kimball Young, *Source Book for Social Psychology* (Knopf).
 Allport, *Social Psychology* (Houghton Mifflin).

Extramural students will buy also

Humphrey, *Story of Man's Mind*, 1932 (Dodd Mead).

Monday, Wednesday, and Friday at 11.
Tuesday, Thursday, and Saturday at 11.

Professor Humphrey, Dr. Hebb.

PHILOSOPHY 3. THE PHILOSOPHY OF DEMOCRACY.

This course aims to clarify the ideas that underlie the democratic way of life. It will study modern philosophers who make important contributions towards this end.

Text-books:

Randall, *The Making of the Modern Mind* (Allen and Unwin).
 T. V. Smith, *The Democratic Way of Life* (Univ. of Chicago).

Monday, Wednesday, and Friday at 11.

Professor Vlastos, Dr. Estall.

PHILOSOPHY 4. CONTEMPORARY PSYCHOLOGY.

A survey of present-day psychology and its elementary applications in business, industry and the home. The problem of everyday mental health will be considered.

Text-books: To be announced.

Tuesday, Thursday, and Saturday at 11.

Dr. Hebb.

PHILOSOPHY 10. HISTORY OF PHILOSOPHY.

A survey of the major philosophical systems in their historical development. The course will include:

- (a) Ancient Philosophy: Ionians, Eleatics, Pythagoreans, Atomists; Plato; Aristotle; Stoics and Epicureans.
- (b) Modern Philosophy: Descartes, Spinoza, Leibniz; Locke, Berkeley, Hume; Kant and German Idealism.

Text-books:

Zeller, *Outline of Greek Philosophy* (Kegan, Paul).

Fuller, *History of Philosophy*, Vol. 2 (Holt).

Extramural students are also required to buy

Plato, *Selections*, edited by Demos (Scribners),
and

Aristotle, *Selections*, edited by Ross (Scribners).

Monday, Wednesday, and Friday at 10.

Professor Vlastos, Dr. Estall.

PHILOSOPHY 11. CONTEMPORARY MOVEMENTS IN PHILOSOPHY.

A study of typical figures in the philosophy of the nineteenth and twentieth centuries: Bergson and the philosophy of evolution; Husserl and the relation between philosophy and psychology; the philosophy of history from Hegel to Mannheim; the philosophy of science from Comte to Whitehead.

Texts to be announced.

Tuesday, Thursday, and Saturday at 11.

Dr. Estall.

PHILOSOPHY 12. PSYCHOLOGY OF THE CHILD.

The aim of this course is to give a psychological insight into the problems of the development and education of the child and young person. The theory and application of mental testing are discussed, and arrangements will be made for practical work in testing.

Text-books:

Freeman, *Individual Differences* (Holt).

Boynton, *Intelligence* (Appleton-Century).

Sandiford, *Educational Psychology* (Longmans).

Readings are also required in other texts.

Not offered in 1940-41.

Professor Humphrey.

PHILOSOPHY 14a. AESTHETICS.

The course aims to introduce the student to the general question of the meaning of beauty and its place in experience.

Text-book:

Rader, *A Modern Book of Aesthetics* (Holt).

Tuesday, Thursday, and Saturday at 10.

Professor Vlastos.

PHILOSOPHY 15. EXPERIMENTAL PSYCHOLOGY.

The purpose of this course is to give an elementary knowledge of the experimental method as it is employed in Psychology. During the first term the student performs selected standard experiments, and learns to evaluate the data obtained. During the second term, individual experimental projects are undertaken under the guidance of the instructor. Some consideration is given to methods of psychological testing and to statistics.

Text-books:

Boring, Langfeld, Weld, *Psychology* (Wiley).

Boring, Langfield, Weld, *A manual of psychological experiments* (Wiley).

Friday, 1-3 and Wednesday, 1-4.

Dr. Hebb.

PHILOSOPHY 18. MORAL AND SOCIAL PHILOSOPHY.

The general approach will be as follows:

(a) Historical: the development of moral ideas through primitive, classical, mediaeval, and modern periods.

(b) Systematic: theoretical problems (e.g., the good, duty, virtue, pleasure, conscience, freedom) and representative answers (Plato, Aristotle, Epicurus, Epictetus, Spinoza, Hobbes, Shaftesbury, Hume, Rousseau, Kant, Bentham, Mill, Nietzsche).

(c) Social: application of theory to the contemporary scene (moral problems in politics, economics, the family).

Text-book:—

Dewey and Tufts, *Ethics* (Revised Edition, Holt).

Readings in source-materials will be required.

Not offered in 1940-41.

Professor Vlastos.

PHILOSOPHY 19b. THE CONCEPT OF GOD IN RECENT PHILOSOPHY.

This course is not offered as preparation for professional studies in theology, but for its general interest for the student of philosophy. It examines various ideas of God presented by outstanding contemporary thinkers.

Text-book:

A. N. Whitehead, *Religion in the Making* (Cambridge).

Additional readings in the following:

W. E. Hocking, *The Meaning of God in Human Experience* (Yale).

S. Alexander, *Space, Time, and Deity* (Macmillan).

Horton and Wieman, *The Growth of Religion* (Willett, Clark).

Tuesday, Thursday, and Saturday at 10.

Professor Vlastos.

PHILOSOPHY 20. CONTEMPORARY PSYCHOLOGY.

Arranged for extramural students.

PHILOSOPHY 22. THE PRINCIPLES OF PSYCHOLOGY.

A systematic presentation of present day psychological doctrine, which is discussed in the light of the experimental evidence. The course involves practical work, the hours of which will be arranged.

Text-book:

Woodworth, *Experimental Psychology* (Holt).

Reading is required in the current literature.

Monday, Wednesday, and Friday at 11.

Professor Humphrey.

PHILOSOPHY 24a. ABNORMAL PSYCHOLOGY.

A study of the more modern theories of abnormal mental function, with their relation to normal psychology and everyday mental hygiene.

Text-book:

W. MacDougall, *Abnormal Psychology* (Scribners).

Readings are also required in other texts.

Tuesday, Thursday, and Saturday at 9.

Professor Humphrey.

PHILOSOPHY 26b. HISTORY OF PSYCHOLOGY.

Discusses the solutions that representative psychological thinkers from Greek times to the present day have given of certain persistent problems, such as the relation of the mind to the body and the unity of the mind. The relation of these problems to modern psychological systems is considered.

Rand, *Classical Psychologists* (Houghton Mifflin).

Hulin, *A Short History of Psychology* (Holt).

Tuesday, Thursday, and Saturday at 9.

Professor Humphrey.

PHILOSOPHY 29. LOGIC AND SCIENTIFIC METHOD.

A survey of Aristotelian and symbolic logic, and a study of the principles of scientific thinking.

Cohen and Nagel, *Introduction to Logic and Scientific Method* (Harcourt, Brace, 2nd edition).

Not offered in 1940-41.

Dr. Estall.

PHILOSOPHY 30. PROBLEMS IN PSYCHOLOGY.

A specific experimental problem of a minor character is taken up. A comprehensive report will be required, which will exhibit the results of the investigation and give an account of the previous literature. This course is open for advanced students only, and by permission of the instructor concerned.

Hours by arrangement.

Professor Humphrey, Dr. Hebb.

PHILOSOPHY 31. THE PHILOSOPHICAL FOUNDATIONS OF SOCIAL IDEALS.

An examination of the theoretical basis of competing social ideals. Significant contemporary views will be examined, such as Talcott Parsons' *Structure of Social Action*, Pareto's *Mind and Society*, Frank Knight's *Ethics of Competition*, Mannheim's *Ideology and Utopia*.

Some specific credos, e.g. Hitler's *Mein Kampf*, will also be analysed.

Wednesday from 3 to 5.

Professor Vlastos, Dr. Estall.

READING COURSES IN PHILOSOPHY.

R 1. Metaphysics of Plato.

A study of the philosophy of Plato with special attention to the later dialogues.

F. M. Cornford, *Plato's Theory of Knowledge* (Kegan, Paul).

F. M. Cornford, *Plato's Cosmology* (Kegan, Paul).

R 2. History of Ethics.

Detailed readings in the classical moralists.

(A continuation of Philosophy 18.)

Plato, *Philebus*, *Politicus*.

Aristotle, *Nicomachean Ethics*.

Kant, *Metaphysic of Morals*.

R 3. Aesthetic Theory.

Santayana, *The Sense of Beauty* (Scribners).

Croce, *Aesthetic* (Macmillan).

Harrison, *Ancient Art and Ritual* (Home University Library).

Caudwell, *Illusion and Reality* (Macmillan).

The student who has a special interest in one of the arts may consult the Department for alternative reading matter.

R 3a may be taken as an alternative to R 3.

R 3a. Philosophy of Science.

Emile Meyerson, *Identity and Reality* (George Allen & Unwin).

E. Cassirer, *Substance and Function* (Open Court).

N. R. Campbell, *Physics, the Elements* (Cambridge Univ. Press).

READING COURSES IN PSYCHOLOGY.

R 4. Systematic Psychology.

Bills, *General Experimental Psychology* (Longmans).

Murchison, *Handbook of General Experimental Psychology*
(Clark University, 1934; chapters 6 to 11 inclusive).

The student who is aiming at high Honours is also highly recommended to read

Dumas, G., *Nouveau Traité de Psychologie*, two volumes.

(Paris, Alcan, 1930 and 1932,)

R 5. Contemporary Psychology.

Heidbreder, *Seven Psychologies* (Appleton-Century).

Allport, *Personality* (McGraw Hill).

Brown, *Psychology and the Social Order* (McGraw-Hill).

Healy, Bronner, Bowers, *Meaning and Structure of Psychoanalysis* (Knopf).

The student will be expected to show a familiarity with current psychological literature.

R 6. Applied Psychology.

Poffenberger, *Applied Psychology* (Appleton).

Viteles, *Industrial Psychology* (Cape).

Murchison, *Handbook of Child Psychology*. Second edition, revised. (Clark University Press. Apply to the Department concerning certain sections which may be omitted.)

Murphy and Newcomb, *Experimental Social Psychology*
(Harper).

A student with special interests may, at the discretion of the Department, substitute other texts for those listed in R 6.

GRADUATE COURSES

Lecture courses and Directed Special Studies will be offered by the Department as needed.

POLITICAL AND ECONOMIC SCIENCE

THE SIR JOHN A. MACDONALD PROFESSOR OF POLITICAL AND ECONOMIC SCIENCE—W. A. Mackintosh, M.A., Ph.D., F.R.S.C.

PROFESSOR—C. E. Walker, B.Sc.(Acc.), C.A.

PROFESSOR—R. G. H. Smalls, B.Sc.(Econ.), A.C.A.

PROFESSOR—C. A. Curtis, B.A., Ph.D.

PROFESSOR—F. A. Knox, B.A.

ASSISTANT PROFESSOR—J. L. McDougall, M.A.

THE HARDY ASSISTANT PROFESSOR OF POLITICAL AND ECONOMIC SCIENCE—
J. A. Corry, LL.B., B.C.L., LL.M.

HEAD OF THE INDUSTRIAL RELATIONS SECTION—J. C. Cameron, M.Com.

INSTRUCTOR—L. G. Macpherson, B.A., C.A.

REGULATIONS AND ANNOUNCEMENTS

1. Students selecting one course only in this Department may choose Economics 4 or Politics 2.

2. Students selecting this subject as one of their main subjects on the Pass Course must take Economics 4, Politics 2, and Economics 10 or an additional course in Politics. For entrance to courses numbered 10 or higher the student must qualify by obtaining Grade B in the pre-requisite class.

3. Students applying for admission to the Honours Course must have at least Grade B standing on Economics 4 (for Economics) or Politics 2 (for Politics).

4. Students proceeding to Honours in Economics or Politics should consult the syllabus for Honours, which will be furnished on application to the Department.

5. For information in regard to Scholarships in Political and Economic Science see page 60.

6. For Honours in Economics or Politics a student must take:

(a) Twelve courses for Major in Economics as follows:

Economics 4, Politics 2, Economics 10, 11a, 11b, 12, 15, 20, 21, 22, 24.

Three Reading courses, Economics R1, R2, R3.

or Twelve courses for Major in Politics as follows:

Economics 4, Politics 2, Economics 10, 22, Politics 30, Politics 32, 33, 34, 35, with one additional course in History (see 5 and

27) or Philosophy or Greek and Roman History (see 4, 51, 52, 53).

Three Reading courses, Politics R 1, R 2, R 3.

N.B.—Students who have taken Economics 1 may substitute any additional course in the Department for Economics 10.

(b) Five courses for Minor in Philosophy, History or Mathematics, approved by the Department.

(c) Six compulsory general courses to complete the work for degree:
With Philosophy as Minor: English 1, 2, French 1 or Greek 1 or German 1, Latin 1 or Mathematics 1, one science, one free option.

With History as Minor: English 1, 2; Philosophy 1, Latin 1 or Mathematics 1; French 1 or German 1 or Greek 1, one science, one free option.

With Mathematics as Minor: English 1, 2, French 1 or German 1 or Greek 1, Philosophy 1, one science, one free option.

7. A Minor in Economics will normally consist of:

(a) (with Major in Mathematics) Economics 4, Politics 2, Economics 10, 11a, 11b, 12.

(b) (with Major in Philosophy or History) Economics 4, Politics 2, Economics 10, 12, 15 or 11a and 11b.

8. A Minor in Politics will normally consist of:

Economics 4, Politics 2, and *three* of 30, 32, 34 and 35.

COURSES OF INSTRUCTION

POLITICS 2. INTRODUCTION TO POLITICS.

A description and analysis of:

(a) The structure of the modern state—the legislature, executive and judiciary; local government; the function of constitutions and political parties.

(b) The theory of the State with reference to its nature and its appropriate functions.

Text-books:

Blachly and Oatman, *Comparative Government* (Ronald).

Crossman, *Government and the Governed* (Christophers).

Assigned readings.

Additional for extramural students:

Spencer, *Government and Politics Abroad* (Henry Holt & Co.).

Monday, Wednesday, and Friday at 10.

Professor Corry.

ECONOMICS 3. ECONOMICS FOR APPLIED SCIENCE STUDENTS.

Professor Walker.

ECONOMICS 4. INTRODUCTION TO ECONOMICS.

(a) *Economic geography*; climatic regions; geographic and economic factors determining where commodities are produced, the character of international trade and the distribution of population.

(b) *Economic history*; the study of pre-capitalistic economic systems; the rise and development of capitalism; the coming of the industrial revolution in Great Britain and its spread to other countries.

(c) *Regional studies*; both economic history and geography will be used here to analyse the present economic position of the more important countries.

The use of elementary economic principles as instruments for the analysis of economic situations will be emphasized throughout the course.

Text-books:

Bartholomew and Lyde, *The Oxford Economic Atlas* (Oxford University Press, 1937).

Heaton, *Economic History of Europe* (Harper and Bros., 1936).

Huntington, Williams, Valkenburg, *Economic and Social Geography* (Wiley and Sons, 1933).

Assigned readings in the economic history of other areas and in elementary economics.

Extramural students will be required to buy additional books.

Tuesday, Thursday, and Saturday at 9.

Professor Knox.

ECONOMICS 10. PRINCIPLES OF ECONOMICS.

A general course in economic analysis in which an attempt is made to develop a working knowledge of economic principles and their application. The course should ordinarily be taken at the same time as Economics 12.

Prerequisite, Economics 4.

Text-book:—

Garver and Hanson, *Principles of Economics* (Ginn & Co, revised edition, 1937).

Assigned readings.

Monday, Wednesday, and Friday at 2.

Professors Mackintosh, Curtis.

ECONOMICS 11a. INTRODUCTION TO STATISTICS.

An introduction to statistical methods in the fields of economics and commerce. The more generally applicable methods of col-

Text-book:—

Riggleman and Frisbee, *Business Statistics* (McGraw-Hill).
Monday, Wednesday, and Friday at 2.

Professor McDougall.

ECONOMICS 11b (Economics 10b, Calendar 1938-39). INTRODUCTION TO ACCOUNTING.

A course in which accounting is introduced as a special type of the quantitative method of analysis. The aim of the course is to give the student an understanding of the principles of accounting and of the methods of summarizing accounting information in periodic balance sheets and income statements,—an understanding sufficient to permit the student to use accounting methods as a tool in economic analysis. The course is not intended to prepare the student for practical work in accountancy.

Text-book:—

Porter and Fiske, *Accounting* (Holt).

Monday, Wednesday, and Friday at 2.

Mr. Macpherson.

ECONOMICS 12. MONEY, BANKING, AND INTERNATIONAL TRADE.

A survey of the financial organization of society; a study of money, commercial banking, central banking; a brief comparative study of the commercial banking systems of England, the United States, Canada, France, Germany; the theory of international trade, foreign exchanges, and tariff problems; a history of international financial relations since the war; the present situation.

Text-books:

Ellsworth, *International Economics* (Macmillan, 1938).

Southard, *Foreign Exchange Practice and Policy* (McGraw-Hill, 1940).

Burgess, *The Reserve Banks and the Money Market* (Harper and Bros., 1936).

Report of the Royal Commission on Banking and Currency in Canada, 1933 (Ottawa: King's Printer).

The Bank Act (Ottawa: King's Printer).

The Bank of Canada Act (Ottawa: King's Printer).

Notes on Banking.

Assigned Readings.

Tuesday, Thursday, and Saturday at 8.

Professor Knox.

ECONOMICS 13a. PUBLIC FINANCE.

A study of the relation of the state to the economic life of modern communities. The course will attempt to cover the canons of

lection, analysis, and charting of statistical data will be studied. taxation, revenue systems, relation of state to local taxation, public expenditures and the public debt, and the incidence of taxation.

Text-book:

H. L. Lutz, *Public Finance* (Routledge).

Assigned Readings.

Monday, Wednesday, and Friday at 9.

Mr. Macpherson.

ECONOMICS 15. MODERN ECONOMIC THEORY.

A brief study of the development of modern schools of economic thought followed by discussion of the theory of equilibrium.

Text-books:—

Gray, *The Development of Economic Doctrine* (Longmans).

Cassel, *Theory of Social Economy* (Harcourt, Brace) .

Marshall, *Principles of Economics* (Macmillan).

Joan Robinson, *Theory of Imperfect Competition* (Macmillan).

Chamberlain, *Theory of Monopolistic Competition* (Harvard University Press).

Tuesday and Thursday at 2.

Professor Mackintosh

ECONOMICS 20. PROBLEMS OF ECONOMIC DEVELOPMENT.

A seminar course dealing with the economic problems of a dynamic society. Special attention will be given to the factors of international trade and finance and to applications to the Canadian economy.

References:

Schumpeter, *The Theory of Economic Development* (Harvard University Press).

Haberler, *Prosperity and Depression* (League of Nations).

Keynes, *General Theory of Employment, Interest, and Money* (Macmillan).

Robertson, *Banking Policy and the Price Level* (P. S. King & Son).

Haberler, *Theory of International Trade* (Hodge & Co.).

Hours to be arranged.

Professors Mackintosh and Knox.

ECONOMICS 21. APPLIED ECONOMICS.

A study of the application of economic theory to the problems of the distribution of national wealth and income as affected by monopoly, public finance, and other public policies.

Text-book:

Pigou, *Economics of Welfare* (Macmillan)

Assigned Readings.

Monday, Wednesday, and Friday at 10, Commerce Building.

Professor Curtis.

ECONOMICS 22. SOCIALISM.

A study of the theories of Marx and Lenin; the economics of communism, fascism, and socialism, "planned" capitalism, and the problem of economic reform. *Two hours a week.*

Reference books:

Skelton, *Socialism, A Critical Analysis* (1911).

Trotsky, *Karl Marx* (Longmans, Green Co., 1939).

Dobb, *Political Economy and Capitalism* (Routledge, 1937).

Pigou, *Socialism vs. Capitalism* (Macmillan, 1937).

Current literature on communism, fascism, and economic reform.

Hours to be arranged.

Professor Knox.

ECONOMICS 24. CORPORATION FINANCE.

A lecture course (one hour each week) on the chief problems of corporation finance.

Hours to be arranged.

Professor Curtis.

ECONOMICS 28b. ECONOMICS OF TRANSPORTATION.

The chief interest in this course will be in the economics of railway transportation in Canada. After a short discussion of the growth of the Canadian railway system, the theory of monopoly pricing will be taken up at length. The discussion of rates will be treated as a particular problem under that head. The course will close with a consideration of the forces tending to break down the conditions of monopoly and of the implications of that change.

W. T. Jackman, *Economic Principles of Transportation* (University of Toronto Press).

Assigned Readings.

Monday, Wednesday, and Friday at 9.

Professor McDougall.

ECONOMICS 29b. INDUSTRIAL RELATIONS.

A social study of employer-employee relations. Discussion will cover the main economic and human forces which give rise to

labor problems and the attitudes of employers, employees, and the public thereto.

Assigned Readings.

Monday, Wednesday, and Friday at 8.

Professor Cameron.

READING COURSES IN ECONOMICS:

R 1. Economic History of Canada and the United States.

Creighton, D. G., *British North America at Confederation* (Rowell Commission Study).

Innis, H. A., *History of the Fur Trade in Canada* (Ryerson).

Creighton, D. G., *The Commercial Empire of the St. Lawrence*.

Skelton, O. D., *The Railway Builders* (Chronicles of Canada).

Mackintosh, W. A., *The Economic Background of Confederation* (Rowell Commission Study).

Canadian Frontiers of Settlement:

Mackintosh, W. A., *Prairie Settlement*.

Mackintosh, W. A., *Economic Problems of the Prairie Provinces* (part).

Callendar, *Economic History of the United States* (Ginn) (Introductions).

Faulkner, *American Economic History* (Harpers).

Turner, *Rise of the New West*.

R 2. Contemporary Economic Interpretations.

Keynes, *Economic Consequences of the Peace*.

Keynes, *Essays in Persuasion*.

Salter, *Recovery, The Second Effort*.

Robbins, *The Great Depression*.

Loveday and others, *The World's Economic Future*, Sir Halley Stewart Lectures, 1937.

Salter, *World Trade and its Future*.

International Economic Reconstruction (Carnegie Endowment, International Chamber of Commerce).

R 3. Thesis

Subject to be selected in consultation with members of the Department.

POLITICS 30. CANADIAN GOVERNMENT AND CONSTITUTIONAL LAW.

(Offered in 1941-42 and in alternate years).

A critical and historical study of the governmental institutions of Canada and of the British North America Act in particular.

Text-books:—

Dawson, *Constitutional Issues in Canada* (Oxford).

Selected Cases from Cameron, *The Canadian Constitution and the Judicial Committee*.

Assigned readings.

Tuesday, Thursday, and Saturday at 11.

Professor Corry.

POLITICS 32. RECENT POLITICAL THOUGHT.

(Offered in 1940-41 and in alternate years).

A study of recent political thinking with special reference to its philosophical and practical implications.

Text-books:

Sabine, *A History of Political Theory* (Henry Holt & Co.).

Coker, *Recent Political Thought* (Appleton-Century).

Assigned Readings.

Monday, Wednesday, and Friday at 9.

Professor Corry.

POLITICS 33. ENGLISH CONSTITUTIONAL HISTORY AND LAW.

A lecture course (one hour each week) devoted to a few of the more important phases of the subject.

Thursday at 2.

Professor Corry.

POLITICS 34. INTERNATIONAL POLITICS.

(Offered in 1941-42 and in alternate years).

A study of the forces underlying the international scene and a sketch of international organization.

Text-books:

Schuman, *International Politics* (McGraw-Hill).

Assigned Readings.

Monday, Wednesday, and Friday at 9.

Professor Corry.

POLITICS 35. EUROPEAN GOVERNMENTS.

(Offered in 1940-41 and in alternate years).

The structure and working of the principal European Governments.

Text-books:

Munro, *The Governments of Europe* (Macmillan).

Buell, *New Governments in Europe* (Nelson).

Assigned Readings.

Tuesday, Thursday, and Saturday at 11.

Professor Corry.

READING COURSES IN POLITICS:

R. 1 English Constitutional History and Law.

Maitland, *English Constitutional History* (Cambridge).

Dicey, *Law of the Constitution* (Macmillan).

Jennings, *The Law and The Constitution*, 2nd edition (University of London Press).

R 2. The British Commonwealth of Nations.

Dawson, *Development of Dominion Status* (Oxford).

Willert, *The Empire in the World* (Oxford).

Hancock, *Survey of British Commonwealth Affairs* (Oxford).

Chatham House Group, *The British Empire*, 2nd edition (Oxford).

R 3. Thesis.

Subject to be selected after consultation with members of the Department.

Commerce and Administration

(See also calendar of the School of Commerce and Administration).

COMMERCE 50a. INDUSTRIAL MANAGEMENT.

A study of the application of the principles of management in industry. Special attention is directed to employer-employee relations.

Assigned Readings.

Monday, Wednesday, and Friday at 8.

Professor Cameron.

COMMERCE 52. PRINCIPLES OF MARKETING.

A study of marketing functions, organization and policies from the standpoint of the business man. The first part of the course deals with the marketing of certain important agricultural commodities; the latter part, using the case method, considers the sales problems of retail, wholesale and manufacturing establishments.

Learned, *Problems in Marketing* (McGraw-Hill).

Tuesday, Thursday, and Saturday at 11.

Professor Mackintosh.

COMMERCE 54. BUSINESS FINANCE.

A study of the economic problems of the corporate enterprise, throughout its life cycle.

Prerequisites—Economics 12 and Commerce 63.

N. S. Buchanan, *The Economics of Corporate Enterprise* (Holt).

General Reading:

Dewing, *Financial Policy of Corporations* (Ronald Press).

Lincoln, *Applied Business Finance* (McGraw-Hill).

Guthman, *Analysis of Financial Statements* (Prentice-Hall).

Crumbaker, *Organizing and Financing a Modern Business* (Wylie).

Gerstenberg, *Financial Organization and Management* (Pren-
tice-Hall).

Monday, Wednesday, and Friday at 11.

Professor McDougall.

COMMERCE 59. BUSINESS INVESTIGATION AND RESEARCH.

An introduction to original investigation of an economic problem and the writing of a report thereon. The initial instruction is given in lectures, but most of the work of the course is in the study, under individual direction, of a problem which the student must select not later than October 15th and on which he must submit a written report, in proper form, typed and bound, on March 31st.

Hours to be arranged.

Professor McDougall.

COMMERCE 60. COMMERCIAL LAW.

A study of the elements of commercial law, including the general principles of the law of contract and the law relating to sale of goods, negotiable instruments, agency, insurance, carriage of goods, partnerships and companies.

General Reading:

Anson, *Law of Contracts* (Clarendon Press).

Jenks, *Book of English Law* (John Murray).

Special topics:

Anger, *Digest of Canadian Mercantile Law*.

Caporn, *Cases on Contract* (Stevens and Sons).

Falconbridge, *Law of Negotiable Instruments in Canada*
(Ryerson).

Fraser, *Handbook on Canadian Companies* (Carswell).

The [Dominion] Companies Act, 1934, S.C. 1934, Chapter 33.

The [Ontario] Companies Act, R.S.O. 1937, Chapter 251.

Monday, Wednesday, and Friday at 8.

Professors Smalls and Walker.

COMMERCE 63. ELEMENTS OF ACCOUNTING

An introductory study of the principles of accounting. It involves practice in writing up the various books of entry, posting the entries to the ledger accounts, and taking a trial balance. It includes the theory and practice involved in the preparation of the manufacturing, trading and profit and loss accounts, and the balance sheets of the various types of business organization. Consideration is also given to the special features in the accounts of limited liability companies, commission merchants, branches and business enterprises whose accounts are departmentalized, the fundamental principles being emphasized throughout. Atten-

tion is given to the theory and practice involved in accounting for reserves and reserve funds. The principles applied in asset valuation are also studied and their application illustrated.

Walker, *Accounting Principles and Bookkeeping Procedure. Introductory and Advanced Courses* (Gregg Publishing Co.),
Tuesday, Thursday, and Saturday at 11.

Professor Walker.

COMMERCE 64. INTERMEDIATE ACCOUNTING.

A course in which the studies of Commerce 63 are carried to a more advanced stage and some further problems are considered. In the first half of the course particular attention is paid to the accounting methods of incorporated companies in respect to such matters as the issue of bonds and shares, shares of no par value, amortization of bond discount and premium, the redemption of bonds and shares, amalgamations, the consolidated balance sheet and reconstructions. In the second half of the course a study is made of partnership accounts, agency and branch (both domestic and foreign) accounts, and the student is introduced to some problems of executorship and trustee accounting.

Reading:

Smalls and Walker, *Accounting Principles and Practice* (Ryerson).

Paton, *Essentials of Accounting* (Macmillan).

Finney, *Principles of Accounting*, Vols. I and II (Prentice-Hall).

Tuesday, Thursday, and Saturday at 10.

Professor Smalls.

COMMERCE 66b. COST ACCOUNTING.

This course presents the principles and methods of cost accounting.

Dohr, Inghram, and Love, *Cost Accounting* (Ronald).

Bulletins of the National Association of Cost Accountants.

Tuesday, Thursday, and Saturday at 9.

Professor Smalls.

COMMERCE 67a. AUDITING AND INTERNAL CHECK.

A study of systems of internal check, the functions of internal and external auditors, audit procedure generally, the audit of the accounts of limited liability companies and of accounts relating to selected types of business undertakings. Some study is made of the nature and measurement of business income.

Reading: Smails, *Auditing*, third edition (Pitman).

Jackson, *Audit Working Papers* (American Institute of Accountants Foundation).

Montgomery, *Auditing Theory and Practice*, Fifth Edition (Ronald).

Tuesday, Thursday, and Saturday at 9

Professor Smails.

GRADUATE COURSES

ECONOMICS 100. ECONOMIC PROBLEMS OF THE CANADIAN ECONOMY.

A seminar course in the application of economic analysis to specific problems of the Canadian economy such as problems of particular industries, growth and fluctuation, monetary control, international trade and tariffs.

Hours to be arranged.

Professors Mackintosh and Knox.

ECONOMICS 101. PUBLIC FINANCE.

A study of the theoretical and administrative problems of public finance with emphasis on the division of the national income between "private" and "public" uses and the effects of these uses on the size of the national income.

Hours to be arranged.

Professor Curtis.

N.B. Graduate students from other universities may select also certain undergraduate courses.

Directed Special Studies in Economic History and Business Cycles under Professor Mackintosh in Monopolies, Government Regulation of Business and Public Finance under Professor Curtis, in International Trade and Finance under Professor Knox, in Political Science under Professor Corry.

MATHEMATICS

PROFESSOR—J. Matheson, M.A.

PROFESSOR—C. F. Gummer, M.A., Ph.D.

PROFESSOR—N. Miller, M.A., Ph.D.

ASSOCIATE PROFESSOR—K. P. Johnston, B.A., B.Sc.

ASSISTANT PROFESSOR—G. L. Edgett, M.A., Ph.D.

ASSISTANT PROFESSOR—I. Halperin, M.A., Ph.D.

LECTURER—J. O. Watts, M.A.

REGULATIONS AND ANNOUNCEMENTS

1. Mathematics 1, 2, 3a, and 7b, and Astronomy 1 are pass courses, and are open to all who have passed the prerequisites.

2. Students selecting Mathematics as one of the main subjects for a Pass degree will take Mathematics 1, 2, 3a, and 7b; or Mathematics 1 and 2 and Astronomy 1. See also section 4 below.

3. Students are advised not to attempt an Honours Course in Mathematics unless they have obtained high standing in the preceding pass course. Grade B in such a course is the minimum standing on which a student is allowed to proceed.

4. Students who have a standing of at least Grade B in Mathematics 1, or second class in the Mathematics of Honour Matriculation, and who intend to enter the Honours Course in Mathematics, should take courses 2, 10a, and 11b in the same year. They must obtain a standing of at least Grade B in these courses if they wish to proceed.

Students who have obtained credit in Mathematics 1, 2, 10a, and 11b, and are not proceeding with the Honours Course may count these to make Mathematics one of the main subjects for a Pass degree.

5. Students who have taken Mathematics 10a and 11b and wish to proceed to Honours must obtain through the Registrar permission to do so.

6. For Honours in Mathematics a student must take:

(a) Twelve courses for the Major, as follows:

Mathematics 1, 2, 10a, 11b, 12a, 14a, 15b, 16b, the courses outlined in Groups A and B in the syllabus given below and three reading courses in Mathematics, R 1, R 2, R 3.

(b) Five courses for a Minor. The minor is usually in Physics or Economics; but with the consent of the Board of Studies, on the recommendation of the Department of Mathematics, a student may take as his minor a subject other than Physics or Economics.

(c) Six general courses outside of the major and minor subjects:—

- (i) English 1, 2.
- (ii) French 1, or German 1, or Greek 1.
- (iii) Philosophy 1.
- (iv) One free option.
- (v) Course 1 in any one of the sciences.

If the minor selected is Physics the course in (v) will be replaced by a course freely chosen in any subject other than Mathematics or Physics.

7. The work for a major in Mathematics will normally be covered by the student in five years from Pass Matriculation or in four years from Honour Matriculation. The normal distribution of the work over five years is as follows:—

1st year—Mathematics 1.

2nd year—Mathematics 2, 10a, 11b.

3rd year—Mathematics 12a, 14a, 15b, 16b, and Reading course 1.

4th year—The courses of Group A, or of Group B, and Reading course 2.

5th year—The courses of Group B, or of Group A, and Reading course 3.

The work of Group A and that of Group B will be offered in alternate years. The student will take them in the order in which they are offered during his Course.

It is advisable for the student to aim at completing the minor subject at least one year before the time of graduation.

When in the work of the first two years a student has shown exceptional ability he may be permitted to take the lectures in Group A or in Group B in his third year and to arrange his reading in such a way that he may complete the whole Course in four years instead of five.

8. For information in regard to scholarships in Mathematics, see p. 61.

COURSES OF INSTRUCTION

MATHEMATICS 1. TRIGONOMETRY, ANALYTIC GEOMETRY, AND ALGEBRA.

Mullins and Smith, *Freshman Mathematics* (Ginn).

McGraw-Hill, *Five-place Logarithmic and Trigonometric Tables*.

Tuesday, Thursday, and Saturday at 10.

Professor Matheson, Mr. Watts.

MATHEMATICS 2. DIFFERENTIAL AND INTEGRAL CALCULUS.

Granville, Smith and Longley, *Elements of Differential and Integral Calculus* (Ginn and Co.).

Prerequisite, Mathematics 1.

Monday, Wednesday, and Friday at 8.

Tuesday, Thursday, and Saturday at 8.

Professors Miller, Halperin.

MATHEMATICS 3a. MODERN SYNTHETIC GEOMETRY.

An elementary course.

Shively, *Modern Geometry* (Wiley).

Tuesday, Thursday and Saturday at 11.

Professor Gummer.

MATHEMATICS 7b. MATHEMATICS OF INVESTMENT.

Hart, *Mathematics of Investment*, with tables (Heath).

Prerequisite, Mathematics 1.

Tuesday, Thursday and Saturday at 11.

Professor Edgett.

ASTRONOMY 1. A COURSE IN DESCRIPTIVE ASTRONOMY.

Baker, *Astronomy* (van Nostrand), (third edition).

Kingston, *Star Guide*.

Tuesday, Thursday, and Saturday at 9.

Professor Johnston.

MATHEMATICS 10a. ALGEBRA.

Prerequisite, Mathematics 1.

Wilson and Warren, *An Intermediate Algebra* (Oxford University Press).

Monday, Wednesday, and Friday at 11.

Professor Miller.

MATHEMATICS 11b. ANALYTIC GEOMETRY AND CALCULUS.

Fine and Thompson, *Coordinate Geometry* (Macmillan).

Granville, Smith and Longley, *Elements of Differential and Integral Calculus* (Ginn).

Monday, Wednesday, and Friday at 11.

Professor Edgett.

MATHEMATICS 12a. DETERMINANTS AND THEORY OF EQUATIONS.

Prerequisites, Mathematics 2, 10a.

Lovitt, *Elementary Theory of Equations* (Prentice-Hall).

Monday, Wednesday, and Friday at 8.

Professor Edgett.

MATHEMATICS 14a. SPHERICAL TRIGONOMETRY AND ASTRONOMY.

In connection with this course some work will be done in the observatory.

Prerequisite, Mathematics 2.

Tuesday, Thursday, and Saturday at 8.

Professor Johnston.

MATHEMATICS 15b. ANALYTIC SOLID GEOMETRY.

Open to students who have taken Mathematics 12a.

Snyder and Sisam, *Analytic Geometry of Space* (Holt)

Monday, Wednesday, and Friday at 8.

Professor Gummer.

MATHEMATICS 16b. DIFFERENTIAL EQUATIONS.

Prerequisites, Mathematics 2, 10a, and 11b.

Miller, *First Course in Differential Equations* (Oxford Press).

Tuesday, Thursday, and Saturday at 8.

Professor Halperin.

HONOURS GROUP A. (Offered in 1940-41).

Six days a week at 9.

MATHEMATICS 17t. ALGEBRA AND CALCULUS OF DIFFERENCES.

Professor Gummer.

MATHEMATICS 18t. MODERN SYNTHETIC GEOMETRY.

Johnson, *Modern Geometry* (Houghton Mifflin).

Young, *Projective Geometry* (Open Court).

Professor Matheson.

MATHEMATICS 19t. ADVANCED CALCULUS.

Fite, *Advanced Calculus* (Macmillan).

Professor Miller.

HONOURS GROUP B. (Not offered in 1940-41).

Six days a week at 9.

MATHEMATICS 20t. PROBABILITY AND STATISTICS.

Uspensky, *Introduction to Mathematical Probability* (McGraw-Hill).

Rider, *An Introduction to Modern Statistical Method* (Wiley).

Professor Edgett.

MATHEMATICS 21t. ADVANCED ANALYTIC GEOMETRY.

Professor Gummer.

MATHEMATICS 22t. THEORY OF FUNCTIONS OF A COMPLEX

VARIABLE.

Osgood, *Functions of a Complex Variable* (Stechert).

Professor Miller.

READING COURSES IN MATHEMATICS:

R 1. D. E. Smith, *Essentials of Solid Geometry* (Ginn).

From his reading the student should acquire a knowledge of the theorems of the subject and skill in the solution of problems.

R 2. Macpherson, *Modern Astronomy* (Oxford Press).

Durell and Robson, *Advanced Trigonometry* (Bell).

R 3. Young, *Monographs on Modern Mathematics* (Longmans).

GRADUATE COURSES

Graduate courses for the degree of M.A. will be selected from the following:

MATHEMATICS 100a or b. THEORY OF INFINITE SERIES.

Knopp, *Theory and Application of Infinite Series*.

MATHEMATICS 101a or b. THEORY OF FUNCTIONS OF A REAL VARIABLE.

MATHEMATICS 102a or b. MODERN HIGHER ALGEBRA.

Bôcher, *Introduction to Higher Algebra* (Macmillan).

MATHEMATICS 103a or b. DIFFERENTIAL GEOMETRY.

Graustein, *Differential Geometry* (Macmillan).

MATHEMATICS 104a or b. THEORY OF NUMBERS.

MATHEMATICS 107a or b. TOPICS IN DIFFERENTIAL EQUATIONS.

MATHEMATICS 108a or b. ADVANCED MATHEMATICAL STATISTICS.

MATHEMATIC 109a or b. ABSTRACT SPACES.

BACTERIOLOGY

PROFESSOR—G. B. Reed, M.A., B.Sc., Ph.D., F.R.S.C.

REGULATIONS AND ANNOUNCEMENTS

1. Students on a Pass Course taking Biology as a Major may take as a part of the Biology prescription Bacteriology 10.

2. Students taking Biology for Honours may include one or two courses in Bacteriology as part of the Biology prescription. They should consult the professor.

COURSES OF INSTRUCTION

BACTERIOLOGY 10.

An introductory course in general bacteriology, structure and physiology of bacteria, a general survey of the relationship of bacteria to food problems, the soil, industry and medicine.

Prerequisites: Biology 1 and Chemistry 1.

Lectures—Monday and Wednesday at 10.

Laboratory—Two periods per week, Monday 4-6, Friday 1-3.

BACTERIOLOGY 13. PATHOGENIC BACTERIOLOGY.

A systematic study of the disease producing bacteria, infection and immunity.

Hours to be arranged.

BACTERIOLOGY 20. RESEARCH IN BACTERIOLOGY.

BIOCHEMISTRY

CRAINE PROFESSOR OF BIOCHEMISTRY—R. Gordon Sinclair, B.A., Ph.D.
ASSOCIATE PROFESSOR—J. F. Logan, A.M., Ph.D., F.C.I.C.

REGULATIONS AND ANNOUNCEMENTS

For Honours in Biochemistry a student must take twenty-four courses, as follows:

- (a) Chemistry 1, 2, 12, 13, 14.
Biology 1, 10, 15, 16, 26.
Biochemistry 16, 18, 20.
One optional course to be selected from Chemistry 22, 24, 25
or Bacteriology 10.
Three Reading courses: two must be in Biochemistry; the third
may be in Biology, Chemistry, or Biochemistry.
- (b) Compulsory general courses to complete the work for degree:
English 1, 2.
French 1 or German 1.
Philosophy 1.
Mathematics 1, 2.
Physics 1.

Students taking Honours in Biochemistry must consult the Head of the Department before registering for any course in Biochemistry.

COURSES OF INSTRUCTION

BIOCHEMISTRY 16. GENERAL AND COMPARATIVE BIOCHEMISTRY.

A study of the chemical principles fundamental to all living things and the development of chemical processes and compounds characteristic of various animals and plants.

Prerequisite—Biology 1, 10, 15; Chemistry 1, 2, 12.

Texts: To be announced.

Lectures—Monday and Friday at 11.

Laboratory—Monday, 1-4.

Professor Logan.

BIOCHEMISTRY 18. ANIMAL BIOCHEMISTRY.

A study of the composition and function of the compounds occurring in the animal organism. Particular attention is paid to the chemical basis of normal physiological processes in the human organism and of pathological derangements.

Prerequisite—Biology 1, 10, 15; Chemistry 1, 2, 12, 13.

Texts:—

Williams, *A Textbook of Biochemistry*.

Bodansky, *Introduction to Physiological Chemistry*.

Hawk and Bergeim, *Practical Physiological Chemistry*.

Lectures—Thursday and Friday at 1.

Laboratory—Thursday and Friday, 2-4.

Professor Sinclair.

BIOCHEMISTRY 20. ADVANCED BIOCHEMISTRY.

An intensive study of certain fields of biochemistry, e.g. the proteins, the carbohydrates, the lipids, enzymes, intracellular oxidations, the vitamins.

Prerequisites—Biochemistry 16, 18.

Texts: To be announced.

Hours to be arranged.

Professor Sinclair.

READING COURSES IN BIOCHEMISTRY:

R 1. Nutrition.

R 2. Enzymes.

At the beginning of their first year of work in the Department of Biochemistry, students will be assigned a list of the books and papers to be read.

R 3. After consultation with the Biochemistry staff, the student may elect either Biology R 2, Chemistry R 2, or research in Biochemistry.

BIOLOGY

THE JOHN ROBERTS ALLAN PROFESSOR OF BIOLOGY—R. O. Earl.

B.A., S.M., Ph.D.

ASSOCIATE PROFESSOR—John Stanley, M.A., Ph.D.

ASSISTANT PROFESSOR—G. Krotkov, B.Sc., M.A., Ph.D.

LECTURER—H. W. Curran, A.B., M.A.

REGULATIONS AND ANNOUNCEMENTS

1. Biology 1 is prerequisite to all other courses in this Department, Biology 15 is prerequisite to all other courses in Zoology.

2. Candidates for Honours with major or minor in Biology may take Biology 10 and 11 or 10 and 15 in the same year.

3. Students selecting Biology as one of their chief subjects on a Pass Course will take Biology 1, 10 and 15.

4. For information in regard to Scholarships see page 62.

5. Students wishing to complete the academic standing required for Specialist in Biology may offer the Course for Teachers, or the Course for Botanists, or the Course for Zoologists, as given below, with Physics 2 included.

6. For Honours in Biology a student must take:

1. *Course for Teachers.*

(a) Twelve courses for Major as follows:

Biology 1, 10, 11, 12, 15, 16, 17, 18 (or 19), 21.

Three reading courses in Biology, R 1, R 2, R 3.

(b) Five courses for Minor: Four courses in Chemistry, with Physics 1.

(c) Six compulsory general courses to complete the work for degree: English 1, 2, French 1 or German 1 or Greek 1, Philosophy 1, Mathematics 1, one free option.

2. *Course for Botanists.*

(a) Twelve courses for Major as follows:

Biology 1, 10, 11, 12, 21, 31, 45, with two supporting courses, Bacteriology 10 and Physics 2.

Three reading courses in Biology, R 1, R 2, R 3.

(b) Five courses for Minor: Four courses in Chemistry, with Physics 1.

(c) Six compulsory general courses to complete the work for degree: English 1, 2, French 1 or German 1 or Greek 1, Philosophy 1, Mathematics 1, one free option.

3. *Course for Zoologists.*

- (a) Twelve courses for Major as follows:

Biology 1, 15, 16, 17, 18, 19, 26, 45, with one supporting course Bacteriology 10.

Three reading courses in Biology R 1, R 2, R 3.

- (b) Five courses for Minor: Four courses in Chemistry, with Physics 1.

- (c) Six compulsory general courses as stated in 1(c).

COURSES OF INSTRUCTION

BIOLOGY 1. GENERAL BIOLOGY.

A scientific study of plants and animals. The subject is treated in a comprehensive way with emphasis upon generalizations and principles, although careful observations of examples will be made. The following are considered: structure, function, reproduction, heredity, interaction, evolution. Attention is given to human biology, and to the economic importance of other forms.

Text-book: Mavor, *General Biology* (Macmillan).

Lectures—Monday, Wednesday, and Friday at 8.

Laboratory—Monday or Wednesday, 1-3.

Professor Earl.

BIOLOGY 10. GENERAL BOTANY.

The fundamental facts and principles of plant life. A careful study of form, structure and reproduction of representatives of the principal groups. Attention is given to life processes, particularly in the higher plants.

Prerequisite—Biology 1.

Text-book: Brown, *The Plant Kingdom* (Ginn).

Lectures—Tuesday and Thursday at 9.

Laboratory—Tuesday, 1-4.

Professor Krotkov.

BIOLOGY 15. GENERAL ZOOLOGY.

The classification, comparative anatomy, physiology, development, evolution, distribution and economic importance of animals. Laboratory work on the anatomy and classification of representatives of the main classes of animals.

Prerequisite—Biology 1.

Text-books:

Hegner, *College Zoology*, 4th ed. (Macmillan).

Wolcott, *Animal Biology* (McGraw-Hill).

Lectures—Tuesday and Thursday at 10.

Laboratory—Friday, 1-4.

Professor Stanley.

BIOLOGY 11. PHANEROGAMIC BOTANY.

Taxonomy, morphology, life histories and evolution of seed plants.
Special attention is given to representatives of the local flora.

Text-book:

Brown, *The Plant Kingdom* (Ginn).

Lectures—Monday and Wednesday at 9.

Laboratory—Thursday, 1-4.

Offered in 1940-41, but not in 1941-42.

Professor Krotkov.

BIOLOGY 12. CRYPTOGAMIC BOTANY.

The lower plants treated as described for the seed plants in Biology 11.

Prerequisite—Biology 10.

Not offered in 1940-41, but will be given in 1941-42.

Professor Krotkov.

BIOLOGY 16. COMPARATIVE VERTEBRATE ANATOMY.

The comparative anatomy and taxonomy of the principal groups of the vertebrate animals with some consideration of the more primitive chordate forms. The development and comparison of the various systems in these classes with special attention to the study of mammalian anatomy.

Prerequisite—Biology 15.

Text-book: Neal and Rand, *Comparative Anatomy* (Blakiston).

Lectures—Tuesday and Thursday at 8.

Laboratory—Monday, 1-4.

Mr. Curran.

BIOLOGY 17. COMPARATIVE INVERTEBRATE ANATOMY AND TAXONOMY.

A careful study of the comparative anatomy, evolution, development and taxonomy of representatives of the leading classes of invertebrate animals *other than the Arthropoda*. Instruction in the technique of preparation of specimens of invertebrates.

Prerequisite: Biology 15. This course is not open to pass students.

Text-book: Borradaile *et al*, *The Invertebrata* (Cambridge).

Lectures—Monday and Wednesday at 10.

Laboratory—Tuesday, 1-4.

Professor Stanley.

BIOLOGY 18. COMPARATIVE ANATOMY AND TAXONOMY OF THE ARTHROPODA.

A broad but thorough study of the leading representatives of the *Arthropoda*, the course being particularly designed to give a foundation for further work in entomology or arthropod para-

sitology. Instruction in methods of preparation of specimens of the *Arthropoda*.

Prerequisites—Biology 15, 16, 17, but students who have made Grade A in Biology 15 and 16 may take Biology 18 concurrently with Biology 17.

Text-book: Borradaile *et al*, *The Invertebrata* (Cambridge).

Lectures—Tuesday and Thursday at 11.

Laboratory—Wednesday, 1-4.

Professor Stanley.

BIOLOGY 19. ECONOMIC VERTEBRATE ZOOLOGY.

The natural history and taxonomy of the more important vertebrate animals from an economic aspect. Consideration is given to commercial and game fishing, migratory waterfowl and game birds, significant fur-bearing animals. Emphasis is placed on conservation methods as applied to these groups.

Prerequisites—Biology 15, 16.

Not offered in 1940-41, but will be given in 1941-42.

Lectures—Monday and Wednesday at 9.

Laboratory—Wednesday, 1-4.

Mr. Curran.

BIOLOGY 21. PLANT PHYSIOLOGY.

A general study of the following topics: carbon and nitrogen metabolism, nutrition, permeability, water-relations and growth.

Prerequisites—Biology 10, Chemistry 12.

Lectures—Tuesday and Thursday at 8.

Laboratory—Hours to be arranged.

Professor Krotkov.

BIOLOGY 26. ANIMAL PHYSIOLOGY.

Study of the general principles of Physiology, and the physiological investigation of blood, circulation, respiration, muscle, and nervous system. The physiology of digestion, metabolism, excretions, and internal secretions.

Prerequisite—Biology 16.

Dr. Melvin.

BIOLOGY 31. PLANT ECOLOGY.

A study of the origin and development of plant associations in relation to environment. The relations of plants to latitude, altitude, climate, and other distributive factors. Ecological anatomy. Laboratory and field work.

Textbook:

Weaver and Clements, *Plant Ecology*, 2nd edition (McGraw-Hill).

Prerequisite—Biology 11.

Lectures—Monday and Wednesday at 10.

Laboratory—Friday, 1-4.

Not offered in 1940-41, but will be given in 1941-42.

Professor Earl.

BIOLOGY 45. EVOLUTION AND GENETICS.

A consideration of data and concepts of organic evolution; the principles of genetics; exercises on variation and heredity in plants and animals.

Textbook:

Sturtevant and Beadle, *Introduction to Genetics* (Saunders).

Lectures—Tuesday, Thursday, and Saturday at 10.

Professor Earl.

READING COURSES IN BIOLOGY.

R 1. Biological Theories.

Shull, *Evolution* (McGraw-Hill).

Darwin, *On the Origin of Species*.

Singer, *A Short History of Biology* (Oxford).

Bertalanffy and Woodger, *Modern Theories of Development* (Oxford).

Professor Earl.

R 2. General Physiology.

C. G. Rogers, *Textbook of Comparative Physiology* (McGraw-Hill).

W. M. Bayliss, *Principles of General Physiology* (Longmans, Green and Co.).

W. O. James, *An Introduction to Plant Physiology* (Oxford).

Professor Krotkov.

R 3. Biological Aggregations.

Pearse, *Animal Ecology* (McGraw-Hill).

Braun-Blanquet, translated by Fuller and Coward, *Plant Sociology* (McGraw Hill Book Co.).

W. C. Allee, *Animal Life and Social Growth* (Williams and Wilkins).

W. C. Allee, *Animal Aggregations* (University of Chicago Press).

C. Elton, *Animal Ecology* (Macmillan).

W. M. Wheeler, *Social Life among the Insects* (Harcourt Brace and Co.).

R. M. Maciver, *The Elements of Social Science* (Methuen & Co.).

Professor Stanley.

With the consent of the Department, a thesis may be substituted for either R 2 or R 3 but not for R 1. Application for permission to do this must be made to the Department within two weeks of the opening of the fall term.

GRADUATE COURSES

These courses will be given only when feasible and when suitably trained students apply.

BIOLOGY 112. ADVANCED PLANT PHYSIOLOGY.

Prerequisite—Biology 21.

Hours to be arranged.

Professor Krotkov.

BIOLOGY 115. CYTOLOGY.

The structure and life-history of the cell.

Laboratory work, reading and conferences.

Prerequisite—Biology 45.

Hours to be arranged.

Professor Earl.

BIOLOGY 116. ECONOMIC ENTOMOLOGY.

A study of the taxonomy and control of the leading economic insect pests of North America.

Prerequisite—Biology 18.

Hours to be arranged.

Professor Stanley.

BIOLOGY 117. THE GROWTH OF POPULATIONS.

A mathematical study of the growth of populations, host-parasite relations, conservative and dissipative biological associations. Research on the growth of populations.

Prerequisites — Biology 18, 19, Mathematics 2. (Students should not register for this course (Biology 117) without at least the rudiments of calculus and a ready familiarity with mathematical ways of thought.)

Hours to be arranged.

Professor Stanley.

CHEMISTRY

PROFESSOR OF CHEMISTRY—Arthur C. Neish, B.A., A.M., Ph.D.,
F.C.I.C.

PROFESSOR—J. A. McRae, M.A., Ph.D., F.I.C., F.R.S.C.

ASSOCIATE PROFESSOR—J. F. Logan, B.A., A.M., Ph.D., F.C.I.C.

ASSOCIATE PROFESSOR—Grenville B. Frost, B.A., Ph.D.

ASSOCIATE PROFESSOR—L. A. Munro, M.A., Ph.D., F.C.I.C.

ASSISTANT PROFESSOR—Roy L. Dorrance, M.A., F.C.I.C.

LECTURER—E. G. Taylor, B.Sc., Sc.M., Ph.D., A.I.C.

INSTRUCTOR—J. A. Martin, M.A.

MILTON HERSEY FELLOW—S. Gertsman, B.A.

WILLIAM NEISH FELLOW—B. A. Keys, B.A.

DEMONSTRATORS—A. H. Haley.

J. E. McGill, B.A.

H. M. Collins, B.A.

REGULATIONS AND ANNOUNCEMENTS

1. Chemistry 1 and 2 are prerequisite to all other courses in Chemistry. Students should not attempt Chemistry 1 unless they have taken at least Junior Matriculation Chemistry.

2. Students offering Chemistry as one of the main subjects for a Pass degree will take Chemistry 1, 2, and 3. For entrance to all other courses in Chemistry Grade B in Chemistry 2 is necessary.

3. For Honours in Chemistry a student must take:

(a) Twelve courses for Major as follows:

Chemistry 1, 2, 12, 13, 14 17 or Biochemistry 16, 22, 24 or 25, with one supporting course, Mathematics 2.

Three Reading courses in Chemistry, R 1, R 2, R 3.

(b) Five courses for Minor: when the Minor is in Physics a student will take: Physics 1, 2, 11, 14a, 13b and Mathematics 10a and 11b. When the Minor is in Biology, a student will take five courses in Biology to be selected in consultation with the Head of the Department of Biology. When the Minor is in Geology and Mineralogy a student will take: Geology 1, Mineralogy 1, Geology 10a, 10b, 11, 15 or Mineralogy 10a, 10b, 11, 12.

(c) Six compulsory general courses to complete the work for degree: English 1, 2, French 1 or German 1 or Greek 1, Philosophy 1, Mathematics 1, one free option (Physics 1 unless a student already has credit for this course or is taking it elsewhere).

4. A student wishing to complete the academic standing required for Specialist in Chemistry and Physics must include Biology 1 and

10 or 15 in his Course. Biology 1 will be taken as one of the general courses. Biology 10 or 15 will be substituted for one of Chemistry 22, 24, 25.

If Biology is taken as Minor with a Major in Chemistry, Physics 1 must be included in the general courses and Physics 2 will be substituted for one of Chemistry 22, 24, 25.

5. Students taking Honours in Chemistry must consult the Head of the Department after they have passed Chemistry 2.

6. For information in regard to Scholarships in Chemistry see page 62.

COURSES OF INSTRUCTION

General and Inorganic Chemistry

CHEMISTRY 1. GENERAL CHEMISTRY.

This course presupposes that the student has passed Junior Matriculation Chemistry.

It deals with the history, methods of preparation, properties and industrial applications of the more important non-metals and metals and their compounds, and emphasizes the fundamental theories, laws and principles of Chemistry. In the laboratory numerous reactions and properties of the elements and their compounds are studied and applied in an introduction to qualitative chemical analysis.

Text:—

Kendall, *Smith's College Chemistry* (Appleton-Century).

The laboratory text will be announced at the opening of the session.

Lectures—Monday, Wednesday, Friday at 10, Room 310, Gordon Hall.

Laboratory—Thursday, 1-3, in Rooms 305 and 308, Gordon Hall.

Professor McRae.

Qualitative Analysis

CHEMISTRY 2. QUALITATIVE ANALYSIS.

The lectures deal with the chemistry of metals and the theory of analytical chemistry. The modern concept of the structure of matter is related to analytical behaviour. The development and application of the laws of equilibrium and solutions are emphasized.

The laboratory work consists of the systematic analysis of basic and acid ions leading to the analysis of alloys, salt mixtures, minerals and various commercial products.

Prerequisite—Chemistry 1.

Text:

Engelder, *Semimicro Qualitative Analysis* (Wiley).

Reference Texts—

Treadwell and Hall, Vol. I (Wiley).

Engelder, *Calculations of Qualitative Analysis* (Wiley).

Middleton and Willard, *Semimicro Qualitative Analysis* (Prentice-Hall).

Kendall, *Smith's College Chemistry* (Century).

Lectures—Tuesday and Thursday, 11-12.

Laboratory—Thursday, 1-4, or Friday, 1-4.

Professor Munro.

CHEMISTRY 3. QUANTITATIVE ANALYSIS.—Pass Course.

This is an elementary course designed to illustrate the fundamental procedures of Quantitative Analysis. Gravimetric determinations are made of sulphur, chlorine, iron and phosphorus. A full treatment of volumetric analysis is given, including acidimetry and oxidation-reduction methods. The determinations include iron, chromium and manganese in simple ores, iodimetric copper, the analysis of brass, and other similar determinations.

Text: Talbot, *Quantitative Chemical Analysis* (Macmillan).

Lecture—Thursday at 1 in room 310.

Laboratory—Tuesday, 1-5, in room 207.

Professor Dorrance, Mr. Martin.

CHEMISTRY 12. ORGANIC CHEMISTRY.

An introductory course on the chemistry and compounds of carbon. The principal classes of aliphatic and aromatic compounds are studied to illustrate both their theoretical and practical importance. In the laboratory a number of aliphatic and aromatic compounds is prepared to illustrate typical operations employed in organic chemistry.

Texts:

Conant, *The Chemistry of Organic Compounds* (Macmillan and Co.).

Adams and Johnson, *Laboratory Experiments in Organic Chemistry* (Macmillan and Co.).

Lectures—Wednesday and Friday, at 11.

Laboratory—Wednesday 1-4, or Tuesday 1-4, or Saturday 9-12.

Professor McRae.

CHEMISTRY 13. QUANTITATIVE ANALYSIS—Honours Course.

This course is designed to give training in the principles and practice of Quantitative Analysis to students specializing in chemistry. In the lectures methods of analysis are discussed

showing the relation of the principles of theoretical chemistry to analytical problems. In the laboratory the volumetric work includes neutralization, oxidation-reduction and precipitation reactions, determinations being made of soda-ash, iron ores, paris green, copper ores, proteins, oxalates, vinegars, zinc ores and silver salts. The gravimetric work includes the analysis of chlorides, sulphates, limestone, nickel zinc and lead ores; alloys, steels and industrial products. A number of problems are assigned to illustrate the topics discussed in the lectures and to supplement the laboratory analysis. Throughout the course the accuracy and limitations of the methods are emphasized.

Texts:

Talbot, *Quantitative Analysis* (Macmillan Co.).

Vogel, *A Textbook of Quantitative Inorganic Analysis* (Longmans).

Lectures—Monday and Wednesday at 9.

Laboratory—Thursday, 1-4.

Professor Dorrance, Mr. Martin.

CHEMISTRY 14. PHYSICAL CHEMISTRY.

This course is designed to serve as an introduction to the principles of theoretical chemistry both for students proceeding to more advanced work and for those who desire to obtain some knowledge of the subject in view of its application in other fields. Phenomena involving gases, liquids and solutions are approached from the standpoint of the simple kinetic theory. A few lectures on the crystalline state are included. The phase rule and its applications to systems of two and three components is considered thoroughly. The elementary principles of thermochemistry, equilibria and kinetics are also studied. A large number of problems are assigned.

Prerequisite—Chemistry 1, 2, 13 or 13 and 14 in the same year.

Lectures—Tuesday and Thursday at 9.

Laboratory—Tuesday, 1-4, or Wednesday, 1-4.

Professor Frost.

CHEMISTRY 15a. COLLOID CHEMISTRY.

The lectures deal with the general properties of colloids, surface phenomena, adsorption, etc. The laboratory work is illustrative of the topics dealt with in lectures and includes the preparation of colloids by different methods and a study of their electrical properties, coagulation, surface tension, viscosity, adsorption, gels, etc. Each student is required to write an essay on an assigned phase of applied colloid chemistry.

Prerequisite—Physics 1 and Chemistry 1, 2, 12, 13, and 14; or Chemistry 15a and 12, 13, and 14 may be taken in the same year.

Text: Thomas, *Colloid Chemistry* (McGraw-Hill).

Reference Texts:

Alexander, *Colloid Chemistry*, Vols. I-IV (Chem. Catalogue Co.).

Weiser, *Hydrous Oxides* (McGraw-Hill Co.).

Colloid Symposia Reports and Current Chemical Journals.

Lectures—Wednesday and Friday at 10, first term.

Laboratory—Tuesday, 1-4.

Professor Munro.

CHEMISTRY 17. INDUSTRIAL CHEMISTRY.—*Lectures and Laboratory.*

In the lectures the following topics, illustrated by specimens, lantern slides, motion pictures, and visits to plants will be discussed: Industrial applications of air and water, natural gases, petroleum products, producer gas, coal gas, water gas, by-product coke, sulphur, sulphuric acid, sulphite, pulp and paper, hydrochloric acid, nitric acid, and ammonia, nitrates natural and synthetic, soda, fertilizers, mortars and cements.

In the laboratory typical industrial processes such as crystallization, precipitation, filtration, distillation and rectification, incomplete reactions, gas analysis and industrial flow sheets will be carried out and interpreted.

Prerequisite—Chemistry 1, 2, 12, 13 and Physics 1.

Chemistry 17 and 12 or 13 or both may be taken in the same year.

Text: Rogers, *Manual of Industrial Chemistry* (Van Nostrand).

Handbooks:

Chemical Rubber Pub. Co., *Handbook of Chemistry and Physics* or Lange's *Handbook of Chemists*, or

Olsen, *Chemical Annual* (Van Nostrand) or

Perry, *Chemical Engineers' Handbook* (McGraw-Hill).

Lectures—Tuesday and Thursday at 10 in room 310, Gordon Hall.

Laboratory—Monday, 1-4, in room 400, Gordon Hall.

Professor Neish.

CHEMISTRY 21b. SURFACE CHEMISTRY.

The work of this course is designed to continue the work begun in course 15a. It is devoted to the study of gels, plastics, sorption, the mechanism of catalysis, activation, promoters, carriers, retarders, mixed catalysts and chain reactions.

Prerequisite—Chemistry 15a.

Texts:

Griffith, *The Mechanism of Contact Catalysis* (Oxford University Press).

Gregg, *Adsorption* (Methuen and Co.).

Reference Texts:

McBain, *The Sorption of Gases* (Routledge).

Maxted, *Catalysis and its Industrial Applications* (Churchill).

Schwab Taylor, *Catalysts* (Van Nostrand).

Lectures—Wednesday and Friday, at 11.

Professor Munro.

CHEMISTRY 22. ADVANCED ORGANIC CHEMISTRY.

The principal reactions used in synthetic organic chemistry with practical illustrations in the laboratory. The more detailed chemistry of the aliphatic and aromatic series and of the simpler types of heterocyclic compounds. Laboratory practice in qualitative and quantitative organic chemistry.

Prerequisite—Chemistry 1, 2, 12, 13, 14, or Chemistry 22 and Chemistry 14 may be taken in the same year.

Texts:

Kipping and Kipping, *Perkin and Kipping's Organic Chemistry*, Part III (W. & R. Chambers).

Conant, *The Chemistry of Organic Compounds* (Macmillan Co.).

Books of Reference:

Francis, *Notes on Organic Chemistry* (Arnold).

Cohen, *Advanced Organic Chemistry* (Arnold).

Hickinbottom, *Reactions of Organic Compounds* (Longmans, Green and Co.).

Lectures—Tuesday and Thursday at 11.

Laboratory—Saturday, 9-12, or Wednesday, 1-4.

Professor McRae.

CHEMISTRY 24. ADVANCED PHYSICAL CHEMISTRY.

This course is designed to give a thorough training in the principles of chemical thermodynamics and their application to chemical problems. Practice is given in the computation of free energies, activities and entropies of substances.

Prerequisite—Chemistry 1, 2, 12, 13, 14, and a knowledge of calculus.

Lectures—Tuesday and Thursday at 10.

Laboratory—Tuesday, Wednesday, or Friday, 1-4.

Professor Frost.

CHEMISTRY 25. PHYSICAL CHEMISTRY, ELECTRO-CHEMISTRY.

This course is designed to acquaint the student with the application of electricity to aqueous solutions considering such quantities as the mechanism of electrolysis, transport numbers and ionic migration, solvation of ions, conductance of solutions, modern dissociation theory, reversible cells with and without diffusion, hydrogen electrode, polarization, overvoltage, anodic and cathodic reactions. Some industrial applications such as storage batteries, electrolysis of fused salts, electroplating are discussed. The laboratory work consists in the determination of the quantities discussed in the lectures, electrometric titrations, and the production, electrolytically, of such compounds as ammonium persulphate and white lead.

Prerequisite—Chemistry 1, 2, 12, 13, 14.

Texts:

Glasstone, *The Electrochemistry of Solutions* (Methuen).

Thompson, *Theoretical and Applied Electrochemistry* (Macmillan Co.).

Findlay, *Practical Physical Chemistry* (Longmans, Green and Co.).

Reference:

Kolthoff and Furman, *Potentiometric Titrations* (John Wiley).

Lectures—Monday at 10 in 310, Tuesday at 8 in 105, Gordon Hall.
Laboratory—Wednesday, 1-4, in 401, Gordon Hall.

Professor Dorrance.

READING COURSES IN CHEMISTRY:

R 1. Inorganic Chemistry.

Partington, *Text-book of Inorganic Chemistry* (Macmillan Co.).

or Lowry, *Inorganic Chemistry* (Macmillan Co.).

Professor McRae.

A syllabus of the portions to be read will be furnished on application to the professor.

R 2. Colloid Chemistry.

Ware, *Chemistry of the Colloidal State* (Wiley).

Hatschek, *The Foundations of Colloid Chemistry* (Chemical Pub. Co.).

Portions from: Alexander, *Colloid Chemistry* (Van Nostrand).

Weiser: *Inorganic Colloidal Chemistry* (Wiley and Sons),
and Current Chemical Journals.

Professor Munro.

R 3. History of Chemistry.

H. M. Caven, *The Foundations of Chemical Theory*.

Campbell Brown, *A History of Chemistry*.

Armstrong, *The Art and Principles of Chemistry*.

Weeks, *The Discovery of the Elements*.

Findlay, *A Hundred Years of Chemistry*.

Professor Dorrance.

GRADUATE COURSES

CHEMISTRY 31. GENERAL AND INORGANIC CHEMISTRY—*Research Training*.

For graduate students electing thesis work in Inorganic Chemistry.

Professors Neish, Frost and Munro.

CHEMISTRY 32. ORGANIC CHEMISTRY—*Research Training*.

For graduate students electing thesis work in Organic Chemistry.

Professor McRae.

CHEMISTRY 33. QUANTITATIVE ANALYSIS—*Research Training*.

For graduate students electing thesis work in Quantitative Analysis.

Professor Dorrance.

CHEMISTRY 34. PHYSICAL CHEMISTRY—*Research Training*.

For graduate students electing thesis work in Physical Chemistry.

Professors Frost and Dorrance and Dr. Taylor.

CHEMISTRY 35. COLLOID CHEMISTRY—*Research Training*.

For graduate students electing thesis work in Colloid Chemistry.

Professor Munro.

CHEMISTRY 36. PHYSIOLOGICAL CHEMISTRY—*Research Training*.

For graduate students electing thesis work in Physiological Chemistry.

Professor Logan.

CHEMISTRY 37. INDUSTRIAL CHEMISTRY—*Research Training*.

For graduate students electing thesis work in Industrial Chemistry.

Professor Neish.

CHEMISTRY 42. GRADUATE COURSE. ORGANIC CHEMISTRY.

Lectures will be given to qualified graduate students at hours to be arranged on a selection of topics in organic chemistry including carbohydrates, proteins, terpenes, alkaloids, sterols, hormones and related substances, anthocyanins, modern theoretical organic chemistry.

This course will be given only when numbers warrant it and when otherwise it is deemed feasible.

Professor McRae.

CHEMISTRY 44. GRADUATE COURSE. PHYSICAL CHEMISTRY.

This course is designed to give an introduction to the principles underlying advanced physical chemistry and is intended primarily for students intending to proceed to further graduate work and research. An outline of classical mechanics is first given leading to the quantum theory in its original form. The distribution law is developed and applied to quantitized systems. Modifications introduced by the new quantum theory are then discussed and applied to such topics as specific heats, molecular spectra, activation and chemical kinetics. An introductory treatment of the Schrödinger wave equation is given and applied to problems of potential barriers.

Two lectures per week at hours to be arranged.

This course will be given only to properly qualified students and when numbers warrant it.

Professor Frost.

GEOLOGY

PROFESSOR—M. B. Baker, B.A., B.Sc., F.R.S.C., F.G.S.A.

MILLER MEMORIAL RESEARCH PROFESSOR—E. L. Bruce, B.Sc.,
M.A., Ph.D., F.R.S.C., F.G.S.A.

PROFESSOR—B. Rose, B.Sc., Ph.D., F.R.S.C., F.G.S.A.

LECTURER—M. L. Keith, B.Sc., M.Sc., Ph.D.

ASSISTANT—G. M. Robson, B.A.

RESEARCH ASSISTANTS—P. Ginn, B.Sc., Douglas MacKay, B.Sc.

REGULATIONS AND ANNOUNCEMENTS

1. Mineralogy 1 is prerequisite to Geology 10b and 11. Mineralogy 10a is prerequisite to Geology 10b. Geology 1 and 11 are prerequisite to Geology courses numbered 13, 15, 17, 18, 19.

2. Students selecting Geology as one of the chief subjects on a Pass Course will take Geology 1, 11, and Mineralogy 1.

If the Mineralogy is being counted under another group the third course will be Mineralogy 10a and Geology 10b.

3. For information in regard to Scholarships in Geology see p. 63.

4. (a) For Honours in Geology a student must take in the Major:

(i) Geology 1, 10b, 11, 13, 14a, 15, 17 and Mineralogy 1, 10a, 11, 14b when the Minor is in Chemistry.

(ii) Geology 1, 10b, 11, 13, 14a, 15, 17 and Chemistry 2, 13, 14 when the Minor is in Mineralogy.

Three Reading Courses, R 1, R 2, R 3.

(b) Five courses for Minor:

(c) Six compulsory general courses to complete the work for degree:

English 1, 2, French 1 or German 1 or Greek 1, Philosophy 1, Mathematics 1, a Science (Chemistry 1 when the Minor is in Mineralogy, Physics 1 when the Minor is in Chemistry).

5. For admission to an Honours Course in Geology a student must have made 62% in Mineralogy 1, and in Geology 1.

COURSES OF INSTRUCTION

GEOLOGY 1. INTRODUCTORY COURSE IN PHYSIOGRAPHY AND GENERAL GEOLOGY.

The lectures will deal with external and internal geological processes, and their results; an outline of the history of the earth; fossils and their uses. This course will prove valuable to students who contemplate teaching Geography in schools.

The lectures are illustrated by maps, models, lantern slides, and specimens.

LABORATORY WORK will consist of the examination of typical specimens of fossils, hand specimens of the more common rocks and minerals; together with the interpretation of geological maps, and types of topography. The laboratory work will also include field trips. It is therefore necessary that students should select their laboratory section on an afternoon on which they have no other laboratory period. The expenses of these trips are covered by the laboratory deposit.

Text-book: Miller, *Elements of Geology* (Van Nostrand Co.).

Lectures—Monday and Wednesday at 11.

Laboratory—Wednesday 1-3, or Thursday 1-3.

Professor Rose.

GEOLOGY 10b. ELEMENTARY PETROGRAPHY.

This course is essentially on igneous Geology and Petrography, and will consist of lectures on the geological occurrences of igneous rocks. The lectures will be illustrated by projections of thin sections of rocks, and will be supplemented by laboratory work on hand specimens and rock slices. Mineralogy 10a is prerequisite to Geology 10b.

Text-books:

Pirsson and Knopf, *Rocks and Rock Minerals* (John Wiley & sons).

Lectures—Tuesday and Thursday at 10-11.

Laboratory—Wednesday, 1-3.

Dr. Keith.

GEOLOGY 11. STRUCTURAL GEOLOGY, AND PHYSIOGRAPHY.

Inherent and imposed structures in sedimentary, igneous, and metamorphic rocks, with particular attention to sedimentation, faulting, folding and shearing.

Topography using structure as a basis of interpretation. Physiographic cycles, under normal, arid, glacial, karst and marine conditions. The interpretation of topographic and geologic maps. Illustrations from Canadian occurrences where possible.

Text-books:

Nevin, *Structural Geology*.

Pratt, *Geological Map Exercises*.

Lectures—Wednesday and Friday at 9.

Laboratory—Monday, 8-10.

Professor Rose.

GEOLOGY 13. HISTORICAL GEOLOGY.

Continental evolution and geologic life development with special reference to North America.

Text-book:

Schuchert and Dunbar, *Text-book of Geology*, Part II, *Historical Geology*, 3rd Ed. (John Wiley and Sons).

Lectures—Tuesday and Thursday at 9.

Laboratory—Two hours to be arranged to suit class.

Professor Rose.

GEOLOGY 14a. ADVANCED PETROLOGY.

A course of lectures will be given on the classification of igneous, sedimentary, and metamorphic rocks. Considerable attention will be given to the genesis of rock types, and to the physico-chemical conditions effective in the generation and differentiation of magmas.

Lectures—Wednesday and Friday at 10.

Laboratory—Two hours per week to be arranged with the class.

Dr. Keith.

GEOLOGY 15. ECONOMIC GEOLOGY AND GEOLOGY OF CANADA.

The work in this class is an illustration of the principles of ore deposition, with particular reference to iron, copper, nickel, zinc, lead, silver, gold, aluminum, peat, coal, gas, oil, salt, abrasive and refractory materials. A few lectures on building stone, and the manufacture of clay products will be given.

A course of lectures on the age, classification, structure, and distribution of the chief rock formations in Canada; also a discussion of the character, structure, and chief economic associations of the pre-Cambrian formations in Canada.

Lectures—Tuesday at 11, and Thursday at 1.

Monday at 10.

Professor Baker.

Professor Bruce.

GEOLOGY 16a. GEOMORPHOLOGY, METEOROLOGY, MAP READING.

This course is intended to follow Geology 1 as an essential part of the training necessary for students who expect to teach Geography in the secondary schools of Ontario. It will deal with the general physiography of Canada, and with some reference to other parts of the British Empire. It will also show the relationship of topography to climate control. Part of the time will be devoted to map readings and interpretation, with particular reference to the British Empire.

GEOLOGY 17. FIELD AND LABORATORY GEOLOGY.

This class consists of a systematic field survey in the vicinity of Kingston. The plotting of outcrops, measurement of stratigraphic sections, the determination of levels, and then the prepara-

tion of a contoured geological map to scale, with legend and titles.

Class conducted Monday, 1-5.

Offered in session 1940-41.

Professor Rose.

GEOLOGY 18. SYSTEMATIC PALEONTOLOGY.

Fossils, their classification and identification.

Professor Rose.

GEOLOGY 19. STRATIGRAPHY.

Interpretation of sediments and sedimentary processes; the geologic and geographic distribution of fossils.

Lectures and Laboratory—to be arranged with the class.

Professor Rose.

READING COURSES IN GEOLOGY:

*Books marked thus must be procured by the student for himself.

R 1. History of the Progress of Geology.

*Agar, Flint and Longwell, *Geology from Original Sources* (Holt).

*Willis and Salisbury *Outlines of Geologic History* (University of Chicago Press).

*Source Book in Geology, Mather and Mason (McGraw-Hill).

Geikie, *The Founders of Geology*.

Adams, *The Birth and Development of Geologic Science* (Williams and Wilkins).

R 2. Rock Magmas and their Behavior.

*Tyrrell, *The Principles of Petrology* (Dutton) New York.

*Daly, *Igneous Rocks and the Depths of the Earth* (McGraw-Hill).

*Stansfield, *Assimilation and Petrogenesis* (Valley Pub. Co.), Urbana, Ill.

Rastall, *Geological Magazine*, Vol. LVII, p. 290.

Leith, *Economic Aspects of Geology* (Holt).

Harker, *Petrology for Students* (Cambridge Press).

R 3. A satisfactory report of geological field work done by the student, with a knowledge of the literature of the area involved will be accepted for R 3. Otherwise, a third reading will be assigned the individual student who has not had opportunity to do field work.

GRADUATE COURSES

These courses are open only to graduate students.

Field excursions are required for all these courses.

Geology 113, Principles of Pre-Cambrian Geology. The origin, history and distribution of the rocks older than the Cambrian. Special attention will be given to the Canadian pre-Cambrian areas. The course will be offered in 1940-1941.

Prerequisites—Geology 1, 10a and 11, Mineralogy 1, 10b and 11.

Lectures—Monday and Thursday at 11.

Laboratory—Monday, 1-4, or Wednesday, 9-12.

Professor Bruce.

Geology 114, Structural and Metamorphic Geology. A study of the changes that rocks undergo. Special attention will be paid to the origin of gneisses and schists. It will be given in 1940-41.

Prerequisites—As in Geology 113.

Lectures—Tuesday and Friday at 11.

Laboratory—Friday, 1-4, or Saturday, 9-12.

Professor Bruce.

Geology 115. Pre-Cambrian Ore Deposits. Discussion of ore deposits in Pre-Cambrian rocks with especial reference to those in Canada. The genesis and character of the deposits will be studied in detail.

This course will not be offered in 1940-41. Prerequisites as in Geology 113. It is advisable that Geology 12 and 15 shall also have been taken.

Text-book:

Bruce, *Mineral Deposits of the Canadian Shield* (The Macmillan Co.).

Lectures—Tuesday and Friday at 11.

Laboratory—

Professor Bruce.

Seminar: A seminar for graduate students meets every two weeks for discussion of geological literature. Attendance is voluntary and no formal registration is required.

MINERALOGY

PROFESSOR—J. E. Hawley, M.A., Ph.D., F.G.S.A., F.R.S.C.

LECTURER—N. W. Buerger, S.M., Ph.D.

ASSISTANTS—H. G. Ames, B.Sc., B. I. Nesbitt, B.Sc.

REGULATIONS AND ANNOUNCEMENTS

1. Students taking Mineralogy 1 must have matriculation in Chemistry, or have passed in Chemistry 1, or register in Chemistry 1, concurrently.

2. *Pass Course.* Mineralogy 1, 10, 11 are the three courses necessary if Mineralogy is selected as one of the chief subjects of a Pass Course. For such students it is recommended that Geology and Chemistry be made the other concentration groups.

3. For Honours in Mineralogy a student must take:

(a) Twelve courses for a Major as follows:

Five courses in Mineralogy—1, 10a, 10b, 11, 12, 13.

When the Minor is in Geology, Chemistry 1, 2, 13, and 14 or Physics 2 complete the Major.

When the Minor is in Chemistry, Geology 1, 10b, 14a, Physics 2 and Mathematics 2 complete the Major.

Three Reading courses, R 1, R 2, R 3. Field work or research approved by the department may be substituted for one of the Reading courses. A thesis on this work will be required.

(b) Five courses for a Minor in Geology or Chemistry.

(c) Six compulsory general courses to complete the work for degree: English 1, 2, French 1 or German 1 or Greek 1, Philosophy 1, Mathematics 1, Physics 1.

(d) A Minor in Mineralogy will consist normally of Mineralogy 1, 10a, 10b, 11, 12, 13.

4. For admission to an Honours Course in Mineralogy a student must have made 62 per cent. in each of Mineralogy 1 and Geology 1. Students intending to register in this course should consult with the Department regarding the order in which the courses should be taken. Attention is called to the general regulations regarding entrance to and continuance in Honours Courses.

5. All students in Mineralogy are expected to take part in the field excursions which are made during October and November. Students taking the Geology 1 field trips the same year as Mineralogy 1 need not repeat them for Mineralogy.

6. Each student in the Department is supplied with a locked cabinet containing about 150 mineral specimens.

COURSES OF INSTRUCTION

MINERALOGY I.

A course in Elementary Crystallography, Blowpipe Analysis and Descriptive and Determinative Mineralogy of about 100 common or more important minerals.

Prerequisite—Matriculation Chemistry or Chemistry 1 taken concurrently.

Text-book: Ford, *Dana's Manual of Mineralogy*, 14th Ed. (John Wiley and Sons, Inc., New York, 1929).

or,

Mineralogy, Kraus, Hunt and Ramsdell (McGraw-Hill, 1936). The latter is more complete and is recommended for students without much training in geology and geometry.

For students intending to continue in Mineralogy, Ford, *Dana's Text-book of Mineralogy*, 4th Edition (John Wiley and Sons, Inc., New York, 1932), or *Mineralogy*, Kraus, Hunt and Ramsdell.

Lectures—One hour first term, two hours second term, to be arranged with one of two sections of Mineralogy I (Science).

Section 1, *Monday at 9; Monday and Friday at 9*, second term.

Section 2, *Friday at 8* first term; *Monday at 2, Friday at 8*, second term.

Laboratory—Two hours, to be arranged with one of two Laboratory sections of Mineralogy I (Science). *Monday 1-3*, or *3-5*.

Professor Hawley, Dr. Buerger, and Assistants.

MINERALOGY 10a. ELEMENTS OF OPTICAL MINERALOGY.

Prerequisite—Mathematics 1 and Physics 1.

Optical properties of crystals including non-opaque minerals and chemical compounds.

Text:

A. N. Winchell, *Elements of Optical Mineralogy*. 3rd Ed. (John Wiley and Sons, 1928).

Reference Books:

Thin Section Mineralogy, Rogers and Kerr (McGraw-Hill, 1936).

Optic Properties of Crystals, Groth and Jackson, (Wiley and Sons, 1910).

Manual of Petrographic Methods, Johannsen (McGraw-Hill, 1914).

Lectures—*Monday and Friday at 10*, first term.

Laboratory—*Tuesday 1-3*, or *Friday 8-10 or 1-3*.

Professor Hawley.

MINERALOGY 10b. PHYSICAL MINERALOGY AND CRYSTALLOGRAPHY.

An advanced course in the character of crystals, crystal measurements and crystal drawing.

Prerequisites—Mineralogy 1, Physics 1, Mathematics 1.

Lectures—Monday at 10, Saturday at 9.

Laboratory—Saturday, 10-12.

Dr. Buerger.

MINERALOGY 11. DESCRIPTIVE AND DETERMINATIVE MINERALOGY.

The properties, occurrences and uses of ore and other important minerals, and their determination by blowpipe and microchemical methods.

Prerequisites—Mineralogy 1 and 10a; students on an Honours Course may take 10a and 11 at the same time.

Textbooks:

Dana's Text-Book of Mineralogy, Ford, 4th Ed. (John Wiley and Sons).

Mineral Deposits, Lindgren (McGraw-Hill, 1933).

Lectures—Tuesday 8, Thursday 8.

Laboratory—Wednesday, 1-3, and 3-5 (two sections).

Professor Hawley and Dr. Buerger.

MINERALOGY 12. NON-METALLIC MINERALS AND THEIR TECHNOLOGY.

A study of (1) the optic properties of the feldspars and other rock-forming minerals, (2) the occurrence and utilization of non-metallic minerals.

Prerequisite—Honour standing in Mineralogy 10a and b.

Lectures—Wednesday and Friday at 11.

Laboratory—Saturday 10-12.

Text-book:

A. N. Winchell, *Elements of Optical Mineralogy*, Part II, 3rd Edition (Wiley and Sons, 1933).

Reference Books:

Publications of: Geological Survey of Canada, Mines Branch, Dept. of Mines, Canada; U.S. Geological Survey.

R. B. Ladoo, *Non-Metallic Minerals* (McGraw-Hill, 1925).

Dr. Buerger.

MINERALOGY 13. ORE MINERALS AND MINERALOGRAPHY.

An advanced study of ore minerals and their genesis. Laboratory work will consist of a study of specimens from many deposits by means of the reflecting and petrographic microscopes. This

class will alternate with Mineralogy 115. Not offered in session 1940-1941.

Prerequisite—Honour standing in Mineralogy 11.

Lectures and Laboratory, four hours a week, to be arranged.

Professor Hawley.

MINERALOGY 14b. MINERALOGRAPHY.

Prerequisite—Honour standing in Mineralogy 11.

For students on Honours Geology Course only. An advanced course in the study of metallic minerals in polished sections. A practical and written examination will be given in this subject.

Laboratory—Four hours a week, to be arranged.

Reading to be assigned.

Professor Hawley and Dr. Buerger.

MINERALOGY 16b. WORLD DISTRIBUTION OF ECONOMIC MINERALS.

A course designed for those interested in teaching geography. Minerals of economic importance will be studied as to nature, occurrence, production and reserves.

References:—Current volumes of the Mineral Industry (McGraw-Hill), Mineral Year Books of the Bureau of Mines, U. S. Department of Interior, Mineral Production of Canada, Dominion Bureau of Statistics.

Texts listed under Reading Course No. 1.

Reading to be prescribed in current journals.

Lectures, 2 hours; Laboratory 2 hours, second term—to be arranged.

READING COURSES IN MINERALOGY:

R 1. World Distribution of Minerals and its Significance.

C. K. Leith, *World Minerals and World Politics* (McGraw-Hill, 1931).

*World Atlas of Commercial Geology, Part 7, Distribution of Mineral Production, U.S.G.S., 1921.

*F. W. Clarke, *The Data of Geochemistry*, 5th Ed., U.S.G.S. Bulletin 770.

Mineral Economics, Vol. III., Am. Institute of Mining Engineering Series, McGraw-Hill, 1932.

**Mineral Raw Materials* by Staff, Foreign Minerals Division, U.S. Bur. Mines (McGraw-Hill, 1937).

R 2. X-rays and Crystal Structure.

*R. W. James, *X-ray Crystallography*, 1930 (Methuen and Co., London).

**The Crystalline State*, W. H. and W. L. Bragg, Vol. I (Macmillan, 1934).

Atomic Structure of Minerals, W. L. Bragg (Cornell Univ. Press, 1937).

Wyckoff, R. W. G., *The Structure of Crystals*, 2nd Edn., 1931.

R 3. Metamorphism of Minerals.

C. K. Leith and W. J. Mead, *Metamorphic Geology* (New York, 1915).

Metamorphism, A. Harker (Methuen & Co., 1932).

F. W. Clarke, *The Data of Geochemistry*, 5th Ed., U.S.G.S. Bulletin 770.

Selected Papers in the Journal of Geology and Economic Geology.

Note: Field work or research on mineral deposits may be substituted for one of the above reading courses. A complete report of such work must be submitted to the department.

*Books to be purchased by students. Others may be secured from departmental library.

GRADUATE COURSES

Lecture courses: Mineralogy 115 and 116. By special arrangement certain courses in Geology may be substituted.

MINERALOGY 115. ADVANCED OPTICAL MINERALOGY.

Offered in alternate years with Mineralogy 116.

Offered in session 1940-1941.

Text-book:

A. N. Winchell: *Elements of Optical Mineralogy, Part II*, (J. Wiley and Sons, 1933).

Lectures and Laboratory—Six hours, to be arranged.

Professor Hawley.

MINERALOGY 116.

Advanced study of ore minerals and mineralogography.

Not offered in session 1940-1941.

Text-books:

Mineral Deposits, Lindgren (McGraw-Hill, 1933).

Determination of Opaque Minerals, C. M. Farnham, 1st ed. (McGraw-Hill, 1931).

Microscopic Determination of Ore Minerals, M. N. Short, (Bull. 825, U.S.G.S.).

Lectures and Laboratory—Four hours a week, to be arranged.

Directed Special Studies, on either metallic or non-metallic minerals, with Thesis.

Professor Hawley.

PHYSICS

PROFESSOR—A. L. Clark, B.Sc., Ph.D., F.R.S.C.

CHOWN SCIENCE RESEARCH PROFESSOR OF PHYSICS—J. A. Gray,
O.B.E., D.Sc., F.R.S.C., F.R.S.

THE ROBERT WADDELL PROFESSOR OF PHYSICS—

J. K. Robertson, M.A., F.R.S.C.

PROFESSOR—E. Flammer, B.Sc., Ph.D.

ASSISTANT PROFESSORS—H. M. Cave, M.A., Ph.D.

B. W. Sargent, M.A., Ph.D.

E. E. Watson, M.Sc., Ph.D.

H. W. Harkness, M.A., M.Sc., Ph.D.

DEMONSTRATORS—L. Sobiski, B.A.

E. J. A. Hamilton, B.A.

REGULATIONS AND ANNOUNCEMENTS

1. Students offering Physics as one of their chief subjects on a Pass Course will take Physics 1, 2 and 11.

2. For Honours in Physics a student must take:

(a) Twelve courses for Major, as follows:

Seven courses in Physics, 1, 2, 11, 12a, 14a, 10b, 13b, 16a, 21a, 17b, 20b, with two supporting courses. When the Minor is in Mathematics the two supporting courses will be Chemistry 1 and a course in Physics or Mathematics or another Science, the choice to be made after consultation with the Head of the Department of Physics. When the Minor is in Chemistry the two supporting courses will be Mathematics 1 and 2 and students should choose Mathematics 10a and 11b as one of their free options.

Three Reading courses in Physics, R 1, R 2, R 3.

(b) Five courses for Minor in Mathematics or Chemistry.

(c) Six compulsory general courses to complete the work for degree: English 1, 2, French 1 or German 1 or Greek 1, Philosophy 1, two free options. Students intending to pursue a Major in Physics are strongly advised to acquire a reading knowledge of German.

3. When Physics is the Minor associated with Mathematics as Major, the Minor shall consist of Physics 1, 2, 11, 12a, 14a, 10b and 13b.

When Physics is the Minor associated with Chemistry as Major, the Minor shall consist of Physics 1, 2, 11, 14a and 13b, and Mathematics 10a and 11b.

4. A student wishing to complete the academic standing required for Specialist in Physics and Chemistry must include Biology 1 and 10 or 15 in his course.

5. When Physics is one of three subjects chosen for General Honours (see regulations p. 83) the six courses shall include Physics 1, 2, 11, 14a, 13b, Reading Course 2, and Mathematics 2. If possible, students on such a course should choose Mathematics 10a and 11b as a free option.

COURSES OF INSTRUCTION

PHYSICS 1. MECHANICS, PROPERTIES OF MATTER, HEAT, WAVE-MOTION, SOUND, LIGHT, ELECTRICITY, AND MAGNETISM.

The work of this course is elementary, forming an introduction to the subject. Its purpose is to lay a thorough foundation for subsequent work in theoretical, experimental, and technical Physics, as well as to give a fairly complete elementary knowledge of the subject to those who do not intend to pursue it further. Only an elementary knowledge of Mathematics is required.

Text-books:

Stewart, *Physics* (Ginn and Company).

Lectures—Tuesday, Thursday, and Saturday at 11.

Professors Cave and Watson.

Laboratory—Tuesday 1-3, Tuesday 3-5, Wednesday, 1-3.

Professors Flammer, Cave and Sargent.

PHYSICS 2. LIGHT AND ELECTRICITY AND MAGNETISM.

LIGHT. The work in this section consists of a detailed discussion of vibratory and wave motion; a treatment of reflection and refraction from the standpoint of wave theory; and a study of dispersion, interference, diffraction, spectroscopy, polarization, and double refraction.

ELECTRICITY AND MAGNETISM. A quantitative treatment of phenomena preliminary to the mathematical theory of these subjects.

Prerequisite: Physics 1 For allowance given for Honour Matriculation in Physics see section 8 under ADMISSION.

While not prerequisite, Mathematics 2 will be found very useful in this course, even if taken concurrently.

Texts:

Robertson, *Introduction to Physical Optics* (Van Nostrand).

Mitchell, *A Textbook of Electricity* (Methuen).

Lectures—Tuesday, Thursday, and Saturday at 9.

Professors Robertson and Cave.

Laboratory—Thursday, 3-5.

Professor Robertson.

PHYSICS 11. MECHANICS.

The work of the class is the consideration of the fundamental principles of Mechanics, developing those dealt with in Physics 1 and proceeding to the Mechanics of Impact, Rotation, Simple Harmonic Motion, etc. A large part of the work will be the solution of problems in which the elementary calculus will be freely used.

Prerequisites—Physics 1 and Mathematics 2. For Pass students Physics 2 is also prerequisite. Students on an Honours course with Grade B standing in Physics 1 and Grade A standing in Mathematics 2 (or in Honour Matriculation Mathematics) may take Physics 2 and Physics 11 in the same year.

Lectures—Monday at 10 and Friday at 2.

Laboratory—Wednesday, 1-3.

Professor Cave.

PHYSICS 10b. DYNAMICS OF A PARTICLE.

A series of lectures in which the elements of statics and dynamics of a particle are discussed.

Text-book:

Lamb, *Dynamics* (Cambridge University Press).

Prerequisites—Physics 2 (62%) and Physics 11 (55%).

Lectures—Tuesday and Thursday at 10.

Laboratory—Tuesday, 3-5.

Professors Flammer and Watson.

PHYSICS 12a. INTRODUCTION TO THE MATHEMATICAL THEORY OF ELECTRICITY AND MAGNETISM.

Prerequisites—Physics 2 (62%) and Physics 11 (55%).

Lectures—Tuesday and Thursday at 10.

Laboratory—Tuesday, 3-5.

Professor Watson.

PHYSICS 13b. ATOMIC PHYSICS.

In this course an attempt is made to acquaint the student with some of the modern developments in Physics. Lectures are given on such topics as, The Structure of the Atom, Conduction of Electricity through Gases, Radioactivity and X-rays.

Prerequisites—Physics 2 (62%) and Mathematics 2.

Text-book:

J. A. Crowther, *Ions, Electrons and Ionizing Radiations.*

(Arnold).

Lectures—Monday and Wednesday at 11.

Laboratory—Thursday, 3-5.

Professors Gray and Cave.

PHYSICS 14a. HEAT.

A course beginning with a comprehensive treatment of the isothermal, continuing with a study of the basis of thermometry and the laws of Thermodynamics and closing with a discussion of entropy and its applications.

Prerequisites—Mathematics 2 and Physics 2 (62%).

Lectures—Monday, Wednesday, and Friday at 11.

Laboratory—Thursday, 3-5.

Professors Clark and Cave.

PHYSICS 16a. DYNAMICS OF RIGID BODIES.

A discussion of Motions of a Rigid Body, Ellipsoids of Inertia, Motion with Fixed Axis and Fixed Point, Euler's Equations, and applications to Motion of the Symmetrical Top.

Prerequisite—Physics 10b (55%).

Text-book:

Gans, *Vector Analysis* (Blackie).

Lectures—Monday, Wednesday, and Friday at 11.

Professor Flammer.

PHYSICS 17b. PHYSICAL OPTICS.

A course of lectures on the theory and phenomena of Physical Optics, including a discussion of wave motion, diffraction, interference spectroscopes, spectroscopy, polarization and double refraction.

Prerequisites—55% on each of Physics 10b, 12a, and 13b.

Lectures—Tuesday and Thursday at 11.

Laboratory—Monday, 2-4.

Professor Robertson.

PHYSICS 20b. ELECTRICITY AND MAGNETISM.

Electrodynamics.

Prerequisites—55% each on Physics 10b, 12a and 13b.

Text-book:

Abraham and Becker, *Classical Magnetism and Electricity* (Blackie).

Lectures—Monday, Wednesday, and Friday at 11.

Professor Flammer.

PHYSICS 21a. KINETIC THEORY OF GASES.

Prerequisites—55% on each of Physics 10b, 12a, 13b, and 14a.

Text-book:

Bloch, *Kinetic Theory of Gases.*

Lectures—Tuesday, Thursday, and Saturday at 11.

Professor Gray.

PHYSICS 22. ADVANCED LABORATORY COURSE.

This is the equivalent of a whole lecture course and may be one of the two supporting courses, when Physics is chosen as a Major. (See 2(a), page 194).

Professors Clark, Robertson and Gray.

READING COURSES IN PHYSICS.

R 1. Maxwell, *Matter and Motion* (Sheldon Press).

Selected parts of Electricity and Magnetism, being Vol. III of Grimsehl's *Text-book of Physics* (Blackie).

R 2. Poynting and Thomson, *Properties of Matter* (Charles Griffin), selected parts.

R 3. Planck, *Thermodynamics*, translation of 7th edition (Longmans).

The principal Physics Journals and books relating to the lectures and the laboratory work are kept in the Library of the Physics Department and in the University Library, where they may be freely consulted by the students. Certain of these may be borrowed for limited periods by making application to the librarians in charge.

GRADUATE COURSES

Lecture courses: A minimum of three lectures a week on selected topics.

PHYSICS 27 a or b. MECHANICS.

The development and application of such important principles as the Principle of Virtual Work, Principle of d'Alembert, Hamilton's Principle of the Least Action, Lagrange's Equations, and a brief treatment of Non-Newtonian Mechanics.

Three hours.

Professor Flammer.

PHYSICS 35. DIRECTED SPECIAL STUDIES.

PHYSICAL EDUCATION

MEDICAL OFFICER—Dr. J. T. Tweddell.

DIRECTOR OF PHYSICAL EDUCATION FOR MEN—John F. Edwards, B.A.

DIRECTOR OF PHYSICAL EDUCATION FOR WOMEN—Marion Ross, B.A.

Each first year student is given a careful examination by the Medical Officer at the beginning of the college course, the appointments being made on the day of registration. Corrective and remedial work is then given in the gymnasium when it is needed by the students.

With the exception of those excused by the Medical Officer because of ill-health, all first year students are required to take two hours of gymnasium work per week during the whole of the school year. The time-table for such classes is posted in the gymnasium very soon after registration and these classes may be taken voluntarily by any registered sophomore, junior, or senior in good standing. The work varies throughout the year and as much time as possible is spent outdoors in the early Fall and Spring. This consists of touch football, track and field, and softball, while every student is given a swimming test and the non-swimmers are automatically placed in an instruction group.

Indoor work follows with cooler weather and consists of swimming, Danish calisthenics, marching, setting-up exercises, and apparatus work on the parallel bars, the horse, the mats, and horizontal bar. The winter term brings basketball, indoor softball, group games, and indoor track and field. Each student is encouraged to learn something about all of these activities and a wide variance of exercise is achieved.

Equivalent credit is given for attendance at regular organized swimming and life-saving classes, C.O.T.C. training, and for participation on university teams in track, football, basketball, hockey, water polo, gymnastics, tennis, and boxing and wrestling. Such credit **TERMINATES WITH THE REGULAR SCHEDULED PROGRAMME OF ACTIVITIES OF EACH RESPECTIVE CLUB**, when students will rejoin the weekly gymnasium classes or engage in any other of the sports listed above. At the beginning of the Fall term, each new student must report at the offices of the Physical Directors in the main gymnasium building.

Compulsory classes for the women students are held during the morning periods, and include instruction in the fundamental skills of archery, softball, badminton, basketball, swimming, and diving.

It should be noted that the gymnasium is reserved for women students from 1-3 p.m. for voluntary participation in seasonal sports.

GRADUATE COURSES

DEGREE OF MASTER OF ARTS

1. All candidates for the degree of Master of Arts must have taken the degree of Bachelor of Arts with at least second class Honours.

2. Application for permission to become a candidate for the degree of Master of Arts must be made to the Registrar at least two weeks before the opening of the session. Applicants, if not graduates of Queen's University, must send official certificates giving full details of their previous academic training, including courses taken and grades received, together with a marked Calendar showing the content of the courses. They should also state in what field they desire to carry on their studies.

3. The degree of Master of Arts is given in recognition of a Course of intensive study in the work of one Department of the Faculty of Arts.

This Course consists of:

- (i) Special study under the direction of the Department concerned, together with reports, essays, and conferences, as required.
- (ii) The composition of a thesis.

The Department may also require a candidate to attend:

- (a) Lectures cognate to the subject of the Course of study.
- (b) Lectures prerequisite to the Course of study, which are not reckoned as part of the prescribed Course.

The weight of work required is approximately equivalent to that of four Honours courses of lectures, the thesis being reckoned as half of that amount.

The prescription for each candidate is drawn up by the Department concerned and must be approved by the Faculty of Arts.

4. All candidates must take the following examinations:

- (i) Written Examinations:
 - (a) on all lecture courses prescribed; excepting prerequisite lectures (see 3b);
 - (b) on the directed special study.

The standing required in these examinations is that of second class Honours.

- (ii) An oral examination on the subject of the thesis submitted. The Board of Examiners will in each case include:

- (a) at least two members of the Department concerned;
- (b) at least two members of the Faculty who are not members of the Department concerned.

Each candidate must submit three typed or bound copies of the thesis to the Registrar by April first of the year in which he expects to take his Master's degree.

5. The fees charged are as follows: Sessional fee, \$110.00; Student Interest fees, \$23.00. If any laboratory work is taken, an additional fee of \$10.00 will be charged and a deposit of \$10.00. (See FEES, p. 53).

6. Except by special permission of the Faculty, candidates are required to do all the work for the Master's degree in residence. On the recommendation of the Department concerned the Board of Studies may allow a candidate for the M.A. degree to fulfil at another institution of learning all or part of the requirements as to work and residence prescribed by the Board, provided

- (1) that the candidate holds an Honours B.A. from Queen's in the same field as that of the M.A. work,
- (2) that the subject of study is approved by Queen's and that the work is done under satisfactory supervision,
- (3) that a certificate is required showing that the candidate has given full satisfaction,
- (4) that the thesis is read and accepted by the Department concerned at Queen's and that the candidate is examined for the degree at Queen's both orally and in writing, and
- (5) that the course at the other institution is considered by the Board of Studies to be at least the equal of that offered by Queen's.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The University will accept candidates for the degree of Ph.D. only when it is satisfied that the Departments concerned are in a position to give the Course adequate attention and that the candidate is qualified to undertake the work.

A statement of the regulations governing the Course will be sent on application.

DEGREES, MEDALS, SCHOLARSHIPS, AND PRIZES

1939

DEGREES

HONORARY DEGREES

Degree of LL.D.

Campbell, Sir Gerald
 Gerard, James W.
 Grant, A. J.
 Laird, Reverend Robert
 Macphail, James Alexander
 Scott, Duncan Campbell
 Vachon, Monseigneur Alexandre

Degree of D.D.

Silcox, Reverend Claris Edwin

DEGREES BY EXAMINATION

Degree of B.D.

David Melville John Buttars, B.A. Cobourg, Ont.
 John Thornton Palmer Nichols, B.A. Regina, Sask.
 Robert Henderson Somerville, M.A. Binbrook, Ont.
 Reid Emerson Vipond, B.A. Atwood, Ont.

Degree of M.A.

Elise Malcolm Berry, B.A. Martintown, Ont.
 Norman Francis Carruthers, B.A. Carp, Ont.
 James Blennerhasset Conacher, B.A. Kingston, Ont.
 Hugh Kenneth Coulthart, B.A. Chesterville, Ont.
 Barbara Mary St. George Craig, B.A. Kingston, Ont.
 James Dingwall, B.A. Kingston, Ont.
 Wilfrid King Gummer, B.A. Kingston, Ont.
 Elizabeth Margaret Kennedy, B.A. Toronto, Ont.
 Donald Cameron MacDonald, B.A. Brysonville, P.Q.
 Charles Eustace McGaughey, B.A. North Bay, Ont.
 *Jesse Arthur Pearce, B.A. Regina, Sask.
 Edward Rae Stuart, B.A. Kingston, Ont.
 Robert Bruce Van Order, B.A. Kingston, Ont.

Degree of B.A. (Honours)

*Agnew, W. H. (Old System of Studies:
 History and Economics) Winchester, Ont.
 Asselstine, Grace Mary (French, 3rd class
 Honours) St. Catharines, Ont.
 Burr, S. V. (Geology, 1st class Honours) London, Ont.
 Carefoot, Margaret Mary (French, 2nd class
 Honours) Belleville, Ont.
 Carmichael, J. S. (German, 3rd class Honours) Carleton Place, Ont.
 Clarke, Eleanor Louise (Biology, 1st class
 Honours) Copper Cliff, Ont.

* Indicates graduates of October, 1939.

*Collins, H. M. (Chemistry, 2nd class Honours)	Ottawa, Ont.
Davidson, D. A. (History, 2nd class Honours)	Winchester, Ont.
Day, L. R. (Biology, 2nd class Honours)	Harrowsmith, Ont.
Dearborn, G. L. (Mathematics, 2nd class Honours)	Peterborough, Ont.
Fawcett, H. E. (Old System of Studies: English and History)	Melbourne, Ont.
Gascoigne, F. C. D. (Economics, 1st class Honours)	Kingston, Ont.
Gertler, M. (Philosophy, 2nd class Honours)	Montreal, P.Q.
Gertsman, S. (Chemistry, 1st class Honours)	Outremont, P.Q.
*Goldberg, W. (Philosophy, 2nd class Honours)	Outremont, P.Q.
*Grant, G. P. (History, 1st class Honours)	Montreal, P.Q.
Hamilton, E. J. A. (Mathematics, 3rd class Honours)	Wilton, Ont.
Harlow, Dorothy Jean (English, 1st class Honours)	Kitchener, Ont.
Hay, R. L. (Old System of Studies: General Science)	Russell, Ont.
Henry, D. H. W. (Economics, 1st class Honours)	Ottawa, Ont.
Hitsman, J. M. (History, 2nd class Honours)	Kingston, Ont.
Johnson, K. M. S. (French, 2nd class Honours)	Woodstock, Ont.
*Merriam, I. L. M. (Old System of Studies: General Science)	Thornbury, Ont.
McCreary, W. P. (History, 3rd class Honours)	Smith's Falls, Ont.
McIlvenna, Ruth Mary (French, 2nd class Honours)	North Bay, Ont.
O'Beirn, B. T. (Old System of Studies: English and French)	Temiskaming, P.Q.
Parnall, M. B. (History, 2nd class Honours)	Peterborough, Ont.
Philbrick, H. F. (Mathematics, 1st class Honours)	Beamsville, Ont.
Quigley, Mary Nora (Latin, 2nd class Honours)	Kingston, Ont.
Quirt, J. J. (English, 2nd class Honours)	Kingston, Ont.
*Reid, P. G. (Old System of Studies: History and English)	Chesley, Ont.
Robson, G. M. (Geology, 1st class Honours)	Leamington, Ont.
Ross, Lila (Mathematics, 1st class Honours)	Saint John, N.B.
Rowse, C. N. (Mathematics, 1st class Honours)	Bath, Ont.
Sanders, T. A. (English, 2nd class Honours)	Schreiber, Ont.
Shepherd, D. M. (Latin, 1st class Honours)	Kingston, Ont.
Skelton, Sheila Isabel (History, 1st class Honours)	Ottawa, Ont.
Sobiski, L. J. (Mathematics, 2nd class Honours)	Kenora, Ont.
Stabler, E. (English, 2nd class Honours)	Stratford, Ont.
Stewart, Elinor Frances (Mathematics, 2nd class Honours)	Almonte, Ont.
Trull, L. A. (Old System of Studies: Latin and French)	Kingston, Ont.
Valliant, H. J. W. (French, 2nd class Honours)	Forester's Falls, Ont.
Whitmore, D. R. E. (Mineralogy, 1st class Honours)	Ottawa, Ont.
Wilson, R. J. (German, 1st class Honours)	Ottawa, Ont.

Degree of B.A. (Pass)

Aitkens, D. P.	Ottawa, Ont.
*Alexander, Marjorie	Stamford Centre, Ont.
Alley, J. G.	Toronto, Ont.
Archibald, Margaret M.	Ste. Anne de Bellevue, P.Q.
Baldwin, F. G.	Guelph, Ont.
Band, C. M.	Ottawa, Ont.
Barker, J. T.	Pickering, Ont.
Belwa, Geraldine G. M.	Kingston, Ont.
Berry, Marion I.	Jellyby, Ont.
*Beswetherick, V. Lenora	Fordwich, Ont.
Bolton, Barbara C.	Ottawa, Ont.
Brinkman, Ruth B.	Humberstone, Ont.
Brock, Elizabeth S.	Frood Mine, Ont.
*Brown, Mona	New Liskeard, Ont.
Butler, F. E.	Sherbrooke, P.Q.
*Cameron, Phyllis C.	Westmount, P.Q.
Canright, Cecelia J.	Highland Park, Ill.
Casey, Margaret P.	Kingston, Ont.
Cathcart, Dorothy M.	Kingston, Ont.
Chalmers, N.	Wilkie, Sask.
Chubb, Margaret S.	Smith's Falls, Ont.
*Clark, Audrey L.	Montreal, P.Q.
Cliff, E. Jean	Kingston, Ont.
Colles, Bessy I.	Westport, Ont.
*Cooper, B. M.	East Angus, P.Q.
*Craig, Jessie L.	Kars, Ont.
Crawford, K. J.	Kingston, Ont.
*Cunningham, W. G.	Kingston, Ont.
Engler, Aileen	Ottawa, Ont.
Eoll, G. K.	Fort William, Ont.
*Fitzpatrick, M. J.	Willow Bunch, Sask.
Force, G. R.	Hamilton, Ont.
Foster, Mary K.	Halifax, N.S.
*Fraser, Catherine M.	Kingston, Ont.
*Fusee, M. A. L.	Ottawa, Ont.
Gardner, Lillian M.	Ottawa, Ont.
Gardner, W. J.	Moose Jaw, Sask.
*Gates, C. R.	King, Ont.
Gile, M. D.	Outremont, P.Q.
*Gilhuly, Doris A.	Ottawa, Ont.
Graham, D. Eileen	Ottawa, Ont.
Graham, Mary B.	Kingston, Ont.
*Grant, F. E.	Brockville, Ont.
Hall, D. H. M.	Kingston, Ont.
Harris, M. E.	Montreal, P.Q.
Hartman, J. S.	New Liskeard, Ont.
Harvey, Gladys M.	Toronto, Ont.
Headrick, Elizabeth E.	Ottawa, Ont.
Higgins, E. G.	Oshawa, Ont.
*Hipperson, W. L.	Regina, Sask.
Hogan, J. D.	Toronto, Ont.
*Howarth, Margaret A.	Calgary, Alta.
*Hutton, C. W.	Merrickville, Ont.
Inkster, Katherine	Ottawa, Ont.
*Jeffery, Marjorie R.	Virginiatown, Ont.
*Johnston, Marion C.	Ottawa, Ont.

Keeler, G. M.	Mitchell, Ont.
Laidlaw, A. H.	Ottawa, Ont.
Lamont, D. A.	Komoka, Ont.
*Latimer, Lillian	Blenheim, Ont.
Lee, Kathleen E.	Lavant Station, Ont.
Levine, H.	Outremont, P.Q.
*Lewis, B.	Montreal, P.Q.
Lick, J. E.	Toronto, Ont.
Linn, J. R.	Stayner, Ont.
Malcolm, M. V.	Toronto, Ont.
Malloch, Frances M.	Ottawa, Ont.
*Malloch, G. S.	Ottawa, Ont.
*Martin, Ruth E.	Stirling, Ont.
Maxwell, Doris E. A.	Ottawa, Ont.
Miller, Marion A.	Aylmer West, Ont.
Monteith, D. J.	Aylmer West, Ont.
Moore, G. Elizabeth	Kingston, Ont.
*Moore, W. E. H.	Port Nelson Ont.
Morgan, Ruth	Arnprior, Ont.
*Morrison, A. A.	St. Catharines, Ont.
Mueller, Sieghild	Ludwigshafen, Germany
McCready, Alice E.	Cobalt, Ont.
MacDermid, Margaret I.	Kingston, Ont.
Macdonnell, Anne F.	Toronto, Ont.
MacEwan, K. M.	Maxville, Ont.
McGee, G. W.	Rockwood, Ont.
MacIntosh, Jean E.	Riceville, Ont.
MacIver, Jean E.	Montreal, P.Q.
*MacKay, S. B.	Windsor, Ont.
*McKenzie, W. G.	Toronto, Ont.
*McKinnon, Ruth J.	Guelph, Ont.
*MacLean, D. A.	Greenfield, Ont.
McNeill, L. Isabel	Chicago, Ill.
*MacPherson, W. A.	Toronto, Ont.
Newby, H. D. R.	Belleville, Ont.
Newman, N. E.	St. Catharines, Ont.
Newman, W. C.	Kingston, Ont.
O'Rourke, Ellen F.	Fort Erie North, Ont.
*Osborn, D. C.	Perth Road, Ont.
Ostrosser, Marion R.	Timmins, Ont.
*Percival, Agnes J.	Kingston, Ont.
*Pocock, H. C.	Ottawa, Ont.
Reid, J. W.	Kingston, Ont.
Rice, Marjorie M.	Ottawa, Ont.
*Richardson, I. Doris Emery	Chatham, Ont.
Roger, Katherine L.	Ottawa, Ont.
*Ross, S. Marion	Montreal, P.Q.
Saunders, T.	Montreal, P.Q.
Schalburg, Annette A.	Kingston, Ont.
Scobbie, W. K.	Hamilton, Ont.
Sherman, Ruth	Scotstown, P.Q.
Shouldice, G. E. M.	Chatsworth, Ont.
*Smith, L. W.	Oshawa, Ont.
Smyth, Mary B. (Sister St. Mary Paula)	Sydney, N.S.
Speer, M. Jeannette	Cornwall, Ont.
Stephenson, E. A.	Kingston, Ont.

*Swann, Evelyn I.	Belwood, Ont.
Swezey, Eleanor A.	Kingston, Ont.
Swift, Joan D.	East Orange, N.J.
Swinton, Kathleen M.	Orillia, Ont.
*Teskey, Mollie	Kingston, Ont.
*Tomkins, Lois M.	Ottawa, Ont.
Turnbull, Mabel M.	Kingston, Ont.
Weaver, M. A.	Burlington, Ont.
Wilkie, R. J.	Toronto, Ont.
*Wood, A. E.	Ottawa, Ont.
Zacks, Edythe R.	Kingston, Ont.

Degree of B.Com.

Adelkind, S.	Mossbank, Sask.
*Barnabé, E. A.	Hull, P.Q.
Breen, R. R.	Winnipeg, Man.
Carr, G. K.	Toronto, Ont.
Cunningham, H. M.	Peterborough, Ont.
Eades, G. S.	Shawville, P.Q.
Eligh, G. P.	Ottawa, Ont.
*Fee, G. J.	Ottawa, Ont.
Fenton, Margaret E.	Ottawa, Ont.
Ferguson, J. K.	Osgoode, Ont.
Gilhooly, C. F.	Ottawa, Ont.
Gormley, D. R.	Russell, Ont.
Guselle, R. P.	Arnprior, Ont.
Harrigan, Marian R.	Ottawa, Ont.
Leard, J. R.	Souris, P.E.I.
*McIntyre, D. N.	Victoria, B.C.
McKinnon, N. K.	Weyburn, Sask.
Paynter, H. Pearl	Tantallon, Sask.
*Peart, D. R.	Winnipeg, Man.
Preston, K. J.	Portland, Ont.
Shaw, H. D.	Cardale, Man.
Shaw, Isobel S.	Kingston, Ont.
*Sherry, G. J.	Toronto, Ont.
Stead, R.	Ottawa, Ont.
Walker, C. E.	Kingston, Ont.
Webb, Elizabeth S.	Calgary, Alta.

MEDALS

Medal in Latin	D. M. Shepherd, Kingston, Ont.
Medal in German	R. J. Wilson, Ottawa, Ont.
Medal in English	Dorothy Harlow, Kitchener, Ont.
Medal in History	G. P. Grant, Montreal, P.Q.
Medal in Economics	D. H. Henry, Ottawa, Ont.
Medal in Mathematics	C. N. Rowse, Bath, Ont.

Medal in Chemistry	S. Gertsman, Outremont, P.Q.
Medal in Biology	Eleanor L. Clarke, Copper Cliff, Ont.
Medal in Geology	S. V. Burr, London, Ont.
Medal in Mineralogy	D. R. E. Whitmore, Ottawa, Ont.
French Government Medal	Margaret Carefoot, Belleville, Ont.

SCHOLARSHIPS AND PRIZES

Scholarships not Controlled by the University

The Rhodes Scholarship	G. P. Grant, Montreal, P.Q.
The Marty Memorial Scholarship established in memory of Dr. Aletta Marty by the Queen's University Alumnae Association.....	Elise M. Berry, B.A., Martintown, Ont.

Scholarships and Prizes Controlled by the University

Prince of Wales Prize (awarded to the gradu- ating student in the Faculty of Arts who makes the highest standing)	C. N. Rowse, Bath, Ont.
Wilhelmina Gordon Foundation in English established by the Imperial Order, Daugh- ters of the Empire, in appreciation of the work of Professor Wilhelmina Gordon	Elise M. Berry, B.A., Martintown, Ont.
Robert Bruce Scholarship	Faye Stoness, Flushing, N.Y.
The M. C. Cameron Prize in Gaelic	Donald Rankin, Mabou, Inverness Co., N.S.
Dorothy Chard Parker Memorial Prize in Classics	D. J. Conacher, Kingston, Ont.
The MacLennan Scholarship in Greek	D. J. Conacher, Kingston, Ont.
W. W. Near Scholarship in Classics	Audrey D. Freeman, Kingston, Ont.
Welch Scholarship	Audrey D. Freeman, Kingston, Ont.
Mary Fraser McLennan Prize in Hebrew.....	T. H. Smith, Guelph, Ont.
W. W. Near Scholarship in German	Edgar Davidson, Montreal, P.Q.
Proxime Accessit	Earl Hope, Vancouver, B.C.
Susan Near Scholarship in German	Patricia Howlett, Ottawa, Ont.
The German Exchange Scholarship	R. J. Wilson, Ottawa, Ont.
The French Exchange Scholarship	Ruth M. McIlvenna, North Bay, Ont.

Sir Wilfrid Laurier Memorial Scholarship in French Conversation	Dorothy P. Marcuse, Westmount, P.Q.
W. W. Near Scholarships in French	Audrey Freeman, Kingston, Ont.
	J. W. Conner, Kingston, Ont.
B'nai B'rith Scholarship in French	J. C. Lapp, Bradford, Ont.
W. W. Near Scholarships in Spanish	Katharine McCrodon, Kingston, Ont.
	Patricia Lipsett, Ottawa, Ont.
Susan Near Scholarship in Spanish	Shirley Workman, Kingston, Ont.
Alexander Laird Scholarship in English 1	Faye Stoness, Flushing, N.Y.
McIver Scholarships in English	R. S. Dick, Peterborough, Ont.
	Martha Harrower, Sudbury, Ont, and J. T. Parkhill, Saint John, N.B.
	Barbara Rooke, Kingston, Ont.
Special Prize in English 2	Phyllis T. Rogers, Vankleek Hill, Ont.
McIlquham Foundation in English	Katherine Roger, Ottawa, Ont.
The James C. Rogers Prize in English	Phyllis T. Rogers, Vankleek Hill, Ont.
The '01 Fellowship in English	Martha Harrower, Sudbury, Ont
The Andrew Haydon Scholarship in Colonial History	Ellen Thibadeau, Fort William, Ont.
Arts '09 Scholarship in History	J. L. Engler, Ottawa, Ont.
Susan Near Scholarships in History	D. M. Cornett, Smith's Falls, Ont.
	F. W. Gibson, Kingston, Ont.
W. M. O. Lohead Scholarship in Economics	E. E. Baxter, Bloomfield, Ont.
Adam Shortt Scholarship in Political Science	F. W. Gibson, Kingston, Ont.
W. W. Near Scholarship in Political and Economic Science	G. S. Bowell, Vancouver, B.C.
P. D. Ross Scholarship in Commerce	W. H. Gray, Winnipeg, Man.
Norris A. Brisco Prize in Commerce	K. Carr, B.A., Toronto, Ont.

Gowan Foundation No. I	J. M. Hitsman, Kingston, Ont.
Gowan Foundation No. III	F. C. Gascoigne, Kingston, Ont.
Isaac Cohen Scholarship in Philosophy	Divided between R. S. Dick, Peterborough, Ont. and J. H. Houck, Brampton, Ont.
Susan Near Scholarship in Philosophy	C. A. Park, Chatham, Ont.
N. F. Dupuis Scholarship in Mathematics	G. C. Johnston, Hopetown, P.Q.
E. D. Merkle Prize in Mathematics 2.....	Kathleen E. Butcher, Paris, Ont.
Arts '15 Scholarship in Mathematics	J. Clunas McKibbin, Trenton, Ont.
Susan Near Scholarships in Mathematics	Kathleen E. Butcher, Paris, Ont. Vivian McWhinnie, Williamstown, Ont. D. Jean Tucker, Paisley, Ont. Edna Cohrs, Chapleau, Ont.
The Day Scholarship in Physics and Mathe- matics	Kathleen E. Butcher, Paris, Ont.
Susan Near Scholarships in Physics	R. Y. Moir, Govan, Sask. E. B. Paul, Lyn, Ont. E. B. Paul, Lyn, Ont.
Dr. William H. Nichols Scholarship in Chem- istry	L. Wise, Belleville, Ont.
Susan Near Scholarships in Chemistry	R. Y. Moir, Govan, Sask. D. K. Alexander, Hillier, Ont.
Gowan Foundation No. II	Dorothy P. Marcuse, Westmount, P.Q.
W. W. Near Scholarship in Biology	R. R. Notman, St. Catharines, Ont.
Susan Near Scholarship in Mineralogy and Geology	S. V. Burr, London, Ont.
Reuben Wells Leonard Scholarship for the highest standing at the end of the penulti- mate year	C. J. Guselle, Arnprior, Ont.

Khaki University and Y.M.C.A. Memorial
Scholarship

W. R. Goodwin,
Ste. Anne de Bellevue,
P.Q.

University Scholarships:—

Kathleen E. Butcher,
Paris, Ont.
D. M. Cornett,
Smith's Falls, Ont.
J. L. Engler,
Ottawa, Ont.
Audrey D. Freeman,
Kingston, Ont.
R. Y. Moir,
Govan, Sask.
D. Jean Tucker,
Paisley, Ont.
D. K. Alexander,
Hillier, Ont.

R. S. Dick,
Peterborough, Ont.
J. H. Houck,
Brampton, Ont.
J. R. Miller,
Owen Sound, Ont.
A. N. McLeod,
Ottawa, Ont.
G. G. McLeod,
Ottawa, Ont.
E. B. Paul,
Lyn, Ont.
L. Wise,
Belleville, Ont.

Summer School and Extramural Prizes

Curtis Memorial Foundation E. C. Mahon,
Campbellville, Ont.

W. T. MacClement Prizes J. L. Field,
Ottawa, Ont.
G. K. Eoll,
Fort William, Ont.
K. W. Thrasher,
Pembroke, Ont.
Elizabeth R. Langille,
Truro, N.S.

Special Prize for highest standing in extra-
mural French 2 J. J. Kelly,
Ottawa, Ont.

FELLOWSHIPS

Arts Research Fellowships:—

Travelling Divided between
Elise M. Berry, B.A.,
Martintown, Ont.
and
J. Dingwall, B.A.,
Kingston, Ont.
Resident Lila Ross,
Saint John, N.B.
S. V. Burr,
London, Ont.

Reuben Wells Leonard Fellowships:

Travelling C. E. McGaughey, B.A.,
North Bay, Ont.

Resident Research	Eleanor L. Clarke, Copper Cliff, Ont. Anne Sedgewick, B.A., Ottawa, Ont. D. M. Shepherd, Kingston, Ont. D. R. E. Whitmore, Ottawa, Ont.
Sir James Aikins Fellowship in Canadian History	W. H. Agnew, B.A., Winchester, Ont.
George MacBeth Milligan Fellowship in Philosophy	F. L. Marcuse, Outremont, P.Q.
The Western Ontario Graduates Fellowship in History	M. B. Parnall, Peterborough, Ont.

